H:KETELIE COPY OPICINIAL

EX MARTE OR LATE FILED



Betsy J. Brady, Esq.Federal Government Affairs
Vice President



Suite 1000 1120 20th Street, N.W. Washington, DC 20036 202 457-3824 FAX 202 457-2545 EMAIL betbrady@lga.att.com

June 5, 1998

Ms. Magalie Roman Salas, Secretary Federal Communications Commission Office of the Secretary 1919 M Street, NW, Room 222 Washington, D.C. 20554

Re: Ex Parte

CC Docket No. 98-24 Application of AT&T Corp. and Teleport Communications Group, Inc. for Transfer of Control

Dear Ms. Roman Salas:

At the Commission's request, the attached documents are hereby submitted for inclusion in the record of the above-referenced proceeding.

Two copies of this Notice are being submitted to the Secretary of the FCC in accordance with Section 1.1206(a)(1) of the Commission's rules.

Sincerely,

Buty J. Brady

No. of Copies rec'd D&J
List A B C D E



LONG DISTANCE MARKET SHARES FOURTH QUARTER 1997

James Zolnierek Katie Rangos

Industry Analysis Division
Common Carrier Bureau
Federal Communications Commission
March 1998



This report is available for reference in the Common Carrier Bureau's Public Reference Room, 2000 M Street, N.W., Room 575. Copies may be purchased by calling International Transcription Services, Inc. (ITS) at (202) 857-3800. The report can be downloaded [file name: MKSH4Q97.ZIP] from the FCC-State Link internet site at http://www.fcc.gov/ccb/stats on the World Widè-Web. The report can also be downloaded from the FCC-State Link computer bulletin board system at (202) 418-0241.

TABLE OF CONTENTS

1. INTERSTATE CALLING MINUTES	. 1
TABLE 1.1 Interstate Switched Access Minutes	. 2
2. PRESUBSCRIBED LINES	. 4
TABLE 2.1 Presubscribed Telephone Lines by Carrier	. 5
TABLE 2.2 Market Share of Presubscribed Lines	. 9
TABLE 2.3 Annual Rates of Growth of Presubscribed Lines	. 10
3. TOLL REVENUES	. 11
TABLE 3.1 Total Operating Revenue's of Long Distance Service Providers	. 13
TABLE 3.2 Revenues: Market Share	. 16
TABLE 3.3 The Toll Market	17
TABLE 3.4 Quarterly Toll Revenues Reported to Shareholders	18
4. RESIDENTIAL LONG DISTANCE MARKET SHARES	19
TABLE 4.1 Market Share of Residential Access Lines by State	20
TABLE 4.2 Market Share of Total Long Distance Carrier Residential Revenue	
by State	21
TABLE 4.3 Market Share of Residential Long Distance Carrier Direct Dial Toll	
Minutes by State	22
5. THE INTERNATIONAL LONG DISTANCE TELEPHONE MARKET	23
TABLE 5.1 International Telephone Service	24
APPENDIX 1: METHODOLOGICAL AND SOURCE NOTES	25
APPENDIX 2: AT&T'S MARKET SHARE	27
CHART A2.1 AT&T Share of Interstate Minutes	
CHART A2.2 Indicators of AT&T Market Share	29
APPENDIX 3: PREMIUM VS. NON-PREMIUM ACCESS MINUTES	30
TARIE A3 1 Premium vs. Non-premium Access Minutes	

LONG DISTANCE MARKET SHARES

This report presents information on access minutes, presubscribed lines, and revenues for long distance telephone companies. Company shares of the long distance market are presented for each of these measures. Market shares are also reported according to each measure for the residential portion of the long distance market, and according to revenues for the international portion of the long distance market.

1. INTERSTATE CALLING MINUTES

"Switched access minutes" provide one measure of the volume of traffic carried on the public switched telephone network. Long distance telephone companies ordinarily access the distribution networks of local telephone companies at both ends of long distance calls. Access minutes are a measure of the number of minutes that long distance companies need to access local lines in order to complete long distance calls for their customers.

For each conversation minute of a long distance call there are typically two access minutes, one on the originating end and one on the terminating end. Some calls, however, such as 800, 888, WATS, and international calls generate access minutes on only one end. Access minutes are not measured for calls made on private telecommunications systems and on leased lines.

Column 1 of Table 1.1 shows total interstate, including international, switched access minutes reported for all long distance carriers by the National Exchange Carrier Association (NECA). Interstate calling has grown steadily, with access minutes more than tripling, since this information was first measured in the third quarter of 1984. Overall economic growth, price reductions, and extensive advertising have contributed to this growth.

With few exceptions, terminating access minutes, which do not include dialing and call set up time, equal long distance conversation minutes. Table 1.1 Column.2 shows the number of terminating interstate access minutes reported for all long distance carriers by NECA since 1986, when terminating minutes were first reported separately. Since the third quarter of 1986 terminating access minutes have nearly tripled.

Columns 3 and 4 of Table 1.1 show AT&T's reported total access minutes and terminating access minutes. Columns 5 and 6 show AT&T's market shares of total access minutes and terminating access minutes. Since mid 1984, AT&T's traffic has grown at a rate slower than the industry average. AT&T's minutes have doubled during that period while the minutes for other carriers increased more than ten fold. As a result AT&T's share of long distance access minutes has decreased nearly 40% since the third quarter of 1984.

TABLE 1.1 - INTERSTATE SWITCHED ACCESS MINUTES (FIGURES SHOWN IN BILLIONS)

1	IL.	IUIAL	INDUSTRY	A	T&T	AT&T'S SHARE OF		
		ACCESS MINUTES	TERMINATING MINUTES	ACCESS MINUTES	TERMINATING MINUTES	ACCESS MINUTES	TERMINATING MINUTES	
1984	THIRD QUARTER	37.5		31.6	18.1	84.2 %		
	FOURTH QUARTER	39.6		31.8	18.2	80.2		
1985	FIRST QUARTER	39.6		32.8	19.0	83.0		
ı	SECOND QUARTER	41.5		33.3	19.2	80.3		
	THIRD QUARTER	42.8		33.8	19.4	78.9		
l	FOURTH QUARTER	43.3		33.4	19.2	77.1		
	TOTAL 1985	167.1		133.3	77.0	79.8		
1986	FIRST QUARTER	43.0		34.2	19.9	79.5		
	SECOND QUARTER	44.8		34.7	20.2	77.5		
ł	THIRD QUARTER	46.7	26.7	35.8	20.7	76.6	77.7 %	
	FOURTH QUARTER	48.5	27.6	35.9	20.6	74.0	74.7	
	TOTAL 1986	183.1	21.0	140.6	81.5	76.8	17.1	
 		100.1						
1987	FIRST QUARTER	51.2	28.9	37.4	21.4	72.9	74.2	
	SECOND QUARTER	52.5	29.7	38.6	22.1	73.7	74.2	
]	THIRD QUARTER	55.0	30.9	39.2	22.3	71.2	72.1	
	FOURTH QUARTER	57.0	32.3	40.1	22.6	70.4	70.1	
	TOTAL 1987	215.7	121.8	155.3	88.4	72.0	72.6	
1988	FIRST QUARTER	59.0	33.4	41.2	23.3	69.8	69.9	
1	SECOND QUARTER	59.6	33.6	41.1	23.0	69.0	68.5	
1	THIRD QUARTER	62.1	34.9	42.3	23.6	68.2	67.6	
Ì	FOURTH QUARTER	64.0	35.9	43.0	23.6	67.2	65.8	
	TOTAL 1988	244.6	137.8	167.6	93.6	68.5	67.9	
1989	FIRST QUARTER	66.2	37.3	44.2	24.5	66.8	65.7	
1	SECOND QUARTER	68.5	38.1	44.4	24.5	64.8	64.4	
1	THIRD QUARTER	69.7	38.6	44.9	24.7	64.4	64.1	
1	FOURTH QUARTER	72.6	40.0	46.4	25.3	63.9	63.3	
	TOTAL 1989	277.1	153.9	179.9	99.0	64.9	64.3	
1001) EIRST OUARTER		44.0	47.4	05.0	63.0	60 F	
1990	FIRST QUARTER	74.7	41.2	47.1	25.8	63.0	62.5	
	SECOND QUARTER	II	41.9	47.1	25.7	62.1	61.5	
	THIRD QUARTER	77.9	43.4	48.7	26.4	62.5	60.9	
	FOURTH QUARTER	79.1	43.1	49.8	27.8	63.0	64.5	
	TOTAL 1990	307.4	169.6	192.6	105.8	62.6	62.4	
199	1 FIRST QUARTER	79.2	43.4	49.9	27.1	63.0	62.4	
	SECOND QUARTER	44	44.9	50.5	26.8	61.7	59.6	
	THIRD QUARTER	82.6	45.1	51.2	27.1	61.9	60.1	
1	FOURTH QUARTER	ii	46.4	52.4	27.9	62.1	60.0	
i	FOURTH QUARTER	UT.T						

TABLE 1.1 - INTERSTATE SWITCHED ACCESS MINUTES (FIGURES SHOWN IN BILLIONS)

	TOTAL	INDUSTRY	A	T&T	AT&T'S	SHARE OF
	ACCESS MINUTES	TERMINATING MINUTES	ACCESS MINUTES	TERMINATING MINUTES	ACCESS MINUTES	TERMINATING MINUTES
1992 FIRST QUARTER	85.6	47.7	53.3	28.6	62.2 %	59.9 %
SECOND QUARTER	86.5	48.2	51.9	27.9	60.0	57.8
THIRD QUARTER	87.9	49.1	53.0	28.4	60.3	57.9
FOURTH QUARTER	89.8	50.4	53.5	28.8	59.7	57.1
TOTAL 1992	349.7	195.4	211.7	113.6	60.5	58.2
1993 FIRST QUARTER	90.6	51.0	55.5	29.7	61.3	58.1
SECOND QUARTER	91.2	51.9	55.0	29.9	60.3	57.6
THIRD QUARTER	93.6	54.8	56.3	31.4	60.2	57.2
FOURTH QUARTER	95.9	56.4	56.8	31.9	59.3	56.6
TOTAL 1993	371.2	214.1	223.6	122.8	60.2	57.4
1994 FIRST QUARTER	98.7	58.2	59.0	31.4	59.8	53.9
SECOND QUARTER	97.9	58.3	57.7	31.1	59.0	53.3
THIRD QUARTER	101.9	60.9	58.5	32.6	57.4	53.5
FOURTH QUARTER	102.9	62.0	59.5	33.3	57.9	53.6
TOTAL 1994	401.4	239.4	234.7	128.3	58.5	53.6
1995 FIRST QUARTER	105.6	63.8	59.9	33.6	56.7	52.7
SECOND QUARTER	106.8	64.7	59.3	33.5	55.5	51.8
THIRD QUARTER	109.0	66.7	59.8	34.4	54.8	51.6
FOURTH QUARTER	110.6	67.5	60.8	34.6	55.0	51.2
TOTAL 1995	431.9	262.7	239.8	136.1	55.5	51.8
1996 FIRST QUARTER	115.7	71.2	62.4	35.9	54.0	50.5
SECOND QUARTER	114.7	71.5	60.2	35.1	52.4	49.0
THIRD QUARTER	117.8	74.1	60.7	35.5	51.5	48.0
FOURTH QUARTER	122.2	77.7	61.7	35.6	50.5	45.8
TOTAL 1996	470.4	294.5	244.9	142.1	52.1	48.3
1997 FIRST QUARTER	122.9	77.1	63.9	37.1	52.0	48.2
SECOND QUARTER	124.8	79.4	63.2	37.1	50.7	46.7
THIRD QUARTER	125.6	79.7	65 .3	38.6	52.0	48.5
FOURTH QUARTER	125.9	79.9	64.1	37.4	50.9	46.8
TOTAL 1997	499.1	316.0	256.5	150.2	51.4	47.5

2. PRESUBSCRIBED LINES

.....

A telephone line is said to be presubscribed to the long distance carrier that receives the ordinary long distance calls placed on that line. In areas where equal access is available (areas now covering more than 99% of the nation's lines), customers may choose a long distance carrier. Thereafter, all of the customer's long distance calls are routed to the chosen carrier unless the customer alters normal dialing procedure. For example, the customer might dial a special code to reach an alternate long distance carrier. In areas where equal access is not yet available, all lines are considered presubscribed to AT&T. By the end of 1996, more than 600 companies were providing long distance service to their own presubscribed customers.

Information on the number of lines presubscribed to each long distance carrier was collected by NECA because FCC rules required NECA to recover certain expenses from the larger long distance carriers. A long distance carrier "qualified" for paying these expenses if the number of lines presubscribed to the carrier equaled or exceeded .05% of the nation's presubscribed lines. NECA filed information semi-annually with the Commission. This information is summarized in Table 2.1. Following passage of the Telecommunications Act of 1996, the FCC changed its rules on universal service. At the end of 1996, NECA stopped collecting the presubscribed line data used in this report. As a result, information for December 1996 is the last presubscribed line data collected by NECA.

As of December 1996, NECA reported 158.7 million presubscribed lines in the United States. Special access lines, WATS lines, 800 lines, and other specialized lines are not included in the counts of presubscribed lines. In addition, there are some customers who decide not to choose a long distance carrier and some customers who have toll-restricted lines. Those lines are also not in the count of presubscribed lines.

Table 2.2 lists the market share of presubscribed lines for the top four long distance carriers individually and a composite market share for all other carriers. As of year end 1996, about 63% of the nation's lines were presubscribed to AT&T, 15% to MCI, 7% to Sprint, and 3% to WorldCom. Over six hundred smaller carriers serving about 19.2 million lines accounted for the remaining 12% of the industry.

Table 2.3 computes the annual rates of growth of presubscribed lines for the top four carriers individually, an annual growth rate for the remaining carriers, and an annual growth rate for the total number of industry lines. The annual growth rates are based on twelve month intervals. Because the information was first made available in December 1987, no annual rates of growth could be calculated until December 1988

TABLE 2.1 - PRESUBSCRIBED TELEPHONE LINES BY CARRIER

TOTAL NUMBER OF CARRIERS	DEC 96	JUNE 96	DEC 95	JUNE 95	DEC 94	^ JUNE 94
WITH PRESUBSCRIBED LINES	521	582	583	549	511	454
TOTAL NUMBER OF QUALIFYING CARRIERS TOTAL NUMBER OF NON-QUALIFYING CARRIERS	45 576	43 539	44 539	36 513	35 476	29 425
QUALIFYING COMPANIES 1/	1					
AT&T COMPANIES:	}		1		1	
AT&T COMMUNICATIONS AT&T ALASCOM, INC. 2/	100,177,257	99,599,355	101,138,792	102,502,271	103,957,425	102,421,583
MCI TELECOMMUNICATIONS CORP.	224,192 22,938,608	222,144 24,338,086	218,135	232,525	226,974	222,142
SOUTHERNET	22,350,500	24,330,000	23,911,437	23,459,534	22,040,062	22,286,410
TELECOM*USA TELECONNECT	1				}	
SPRINT	11,788,717	10,905,940	9,784,388	9,589,788	9,467,999	9,244,159
LA CONEXION FAMILIAR, INC. LONG DISTANCE/USA				5,000,100	5,407,555	5,244,103
WORLDCOM 3/	4,297,498	4,110,753	4,088,816	3,683,433	1,954,198	4 834 994
ADVANCED TELECOM CORP. (ATC) AMERICAN NETWORK	}	,,	1,000,010	0,000,400	1,504,150	1,831,304
CLAYDESTA DIGITAL		j		{	(
COM SYSTEMS DBA SUN DIAL		}			j	
ITT METROMEDIA	1		1		ł	
MICROTEL		{	1	-	}	
MID-AMERICAN NATIONAL TELECOMMUNICATIONS	1			į	1	
NTS (NATIONAL TELEPHONE SYSTEMS)	1	{	1	}	}	
TELUS/TELTEC SAVING TOUCH-1 LONG DISTANCE	1	}	}			
WILTEL 4/	1	}	ļ		320,571	161,143
MFS INTELENET, INC.	211,085	177,648	106,489	j	960,004	677,430
EXCEL TELECOMMUNICATIONS, INC. LCI COMPANIES:	3,792,171	3,313,287	1,486,953	223,235	75,543	
LCI INTERNATIONAL/LITEL 5/	2,244,192	1,965,532	1,227,925	840,968	638,464	614,937
LCI CORPORATE TELEMANAGEMENT GROUP LCI/US SIGNAL CORP. 6/)		85,868	·		014,537
FRONTIER COMPANIES: 7/	2,050,019	2,097,182	128,305 } 2,348,301	121,445	114,026	
FRONTIER doe ALLNET COMM, SVC., INC. 8/ FRONTIER COMMUNICATIONS INT'L 9/	(1,334,100)	(1,317,313)	(1,548,658)	1,650,296	1,334,360	1,078,577
FRONTIER COMM-NORTH CENTRAL REGION 10/	(488,074) (134,721)	(441,493) (150,661)	(436,609)	365,841	263,372	278,542
FRONTIER OF THE GREAT LAKES 11/	(93,124)	(97,277)	(161,242) (95,633)	154,038 88,043	132,946 84,141	80,573
FRONTIER OF THE WEST 12/ SNET AMERICA LONG DISTANCE	783,135	(90,438)	(106,159)	133,300	137,489	144,240
GTÉ LONG DISTANCE CO.	733,558	597,251 169,609	304,391	223,844	105,855	
CABLE & WRELESS COMMUNICATIONS TELEFONICA LARGA DISTANCIA	625,367	584,802	543,617	524,014	524,153	537,919
U.S. LONG DISTANCE/ZERO PLUS	470,267 356,932	458,783 276,153	452,017 212,611	444,205 149,308	441,467 116,602	446,390
UNITED TELEPHONE LONG DISTANCE TOUCH 1 COMMUNICATIONS	289,380	471,687	517,379	545,189	572,010	612,991
CITIZENS TELECOM	209,905	149,392 141,636	134,779	108,550		
LONG DISTANCE SAVERS	185,247	170,359	158,001	151,473	141,697	128,716
BUSINESS TELECOM , INC. (BTI) INTER CONTINENTAL TELEPHONE	177,423 160,084	171,239	146,118	132,196	121,822	100,808
L.D. SERVICES, INC.	143,601	117,780 116,239	134,572 99,557	120,932 90,774	99,033	84,534
COASTAL TELEPHONE COMPANY NATIONAL TELEPHONE COMMUNICATIONS, INC.	141,358	133,108	97,917	,,	l l	
VARTEC TELECOM, INC.	139,185 137,594	116,898	120,832	136,568	122,991	. 420 724
CINCINNATI BELL LONG DISTANCE INC. GENERAL COMMUNICATIONS, INC.	134,506	120,710	115,398	102,634	102,163	130,738 92,302
ALLTEL LONG DISTANCE	130,994 127,563	124,969 78,401	119,883	102,813	102,528	102,202
SWITCHED SERVICES COMMUNICATIONS 13/	126,721	70,401	ĺ		ł	
TELAMERICA, INC. ATX TELECOMMUNICATIONS SERVICES	124,628 122,297	122,093	115,403	109,463	105,053	100,282
ONE CALL COMMUNICATIONS	120,952	119,843 110,352	118,637 93,613	113,466 78,328	107,979	110,02
AMERIMISION COMMUNICATIONS CENTURY AREA LONG LINES	117,120		10,010	, 0,525	1	
ACCESS LONG DISTANCE	116,708 107,423	104,143 101,914	90,562	81,438	}	
OCI (ONCOR)	106,742	116,046	128,209	148,918	161,085	163,97
INTERNATIONAL TELECHARGE COMMONWEALTH LONG DISTANCE (CLD)	103,421	109,349	420.444			
AMERICAN TELCO, INC.	99,806	89,783	139,414 83,402	146,663	147,045	125,68
TWT-HEARTLINE ACC LONG DISTANCE CORPORATION	97,531	118,455	117,739	1	í	72,80
MATRIX TELECOM	87,667 85,971	80,795 89,689	79,652 91,031		74,482	
TRESCOM INTERNATIONAL, INC. DELTACOM L.D.S.	84,766		31,001	(-	
MINSTAR GATEWAY NETWORK, INC	83,580	109,991	86,652	}	}	
MIDCOM COMMUNICATIONS	1	79,472	81,386	102,076	1	
COMMUNIQUE TELECOM NORLDXCHANGE 14/			,	}	188,295	197,87
CHERRY COMMUNICATIONS	1		140,610 104,367	127,839 93,746	156,055	79,27
LINTEL (LINCOLN) SONIC COMMUNICATIONS 15/	1	1	79,281	81,010	85,496	88,13
TELESPHERE NETWORK 15/	1			{	114,041	
PUERTO RICO TEL-COM NETECH COMM, US WEST]]		1	ĺ	1	
TOTAL QUALIFYING CARRIERS	154 454 950	153 000 00-	440			
	154,461,869	152,080,868	149,232,439	146,960,164	145,317,426	142,215,683
NON-QUALIFYING CARRIERS	4,210,374	3,920,356	3,368,738	3,384,888	3,161,902	3,013,060
TOTAL INDUSTRY PRESUBSCRIBED LINES	158,672,243		,		-,,	0,515,500

TOTAL NUMBER OF CARRIERS	DEC 93	JUNE 93	DEC 92	JUNE 92	DEC 91	JUNE 91
WITH PRESUBSCRIBED LINES	436	412	414	425	388	355
TOTAL NUMBER OF QUALIFYING CARRIERS TOTAL NUMBER OF NON-QUALIFYING CARRIERS	27 409	28 384	28 386	24 401	22 366	24 331
QUALIFYING COMPANIES 1/						
AT&T COMPANIES:			1			
AT&T COMMUNICATIONS AT&T ALASCOM, INC. 2/	101,711,178	101,770,741 218,225	101,203,888 209,850	101,384,413	101,498,260	101,013,529
MCI TELECOMMUNICATIONS CORP.	21,818,212	21,170,832	20,167,298	203,832 19,189,649	203,105 18,329,870	196,244 17,603,453
SOUTHERNET TELECOMPUSA	1			,,	10,020,010	17,000,400
TELECONNECT	1	}	1	j.	ļ	
SPRINT LA CONEXION FAMILIAR, INC.	9,212,993	8,621,177	8,856,004	8,424,303	8,353,583	8,702,085
LONG DISTANCE/USA		{	71,327	72,555		. ,
WORLDOOM 3/	1,752,616	931,553	482,043	338,820	332,244	134,043
ADVANCED TELECOM CORP. (ATC) AMERICAN NETWORK	1	1	440,961	331,136	333,152	334,157
CLAYDESTA DIGITAL		1			í	
COM SYSTEMS DBA SUN DIAL	1	134,950	126,190	117,571	116,326	119,034
METROMEDIA	1	538,362	494,864	468,698	476 400	407.40
MICROTEL	1 . 1	000,002	454,004	400,056	476,128	497,187
MID-AMERICAN NATIONAL TELECOMMUNICATIONS		1	ļ	Í		
NTS (NATIONAL TELEPHONE SYSTEMS)	1			1		91,417
TELUS/TELTEC SAVING TOUCH-1 LONG DISTANCE						
WILTEL 4/	98,044 432,844	105,244 339,960	110,929 191,076	116,501		
MFS INTELENET, INC.		505,500	131,070	110,501	87,758	
EXCEL TELECOMMUNICATIONS, INC. LCI COMPANIES:	1	}		j.	j	
LCI INTERNATIONAL/LITEL 5/	405,644	359,575	338,496	226,350	186,884	453 540
LCI CORPORATE TELEMANAGEMENT GROUP LCI/US SIGNAL CORP. 6/	1			220,550	100,004	163,089
FRONTIER COMPANIES: 7/	109,071	93, 155	77,096	1	,	
FRONTIER dba ALLNET COMM. SVC., INC. 8/	891,577	846,961	859,499	830,548	813,748	775,847
FRONTIER COMMUNICATIONS INT'L 9/ FRONTIER COMM-NORTH CENTRAL REGION 10/	279,304	260,760	252,495	240,670	190,382	180,321
FRONTIER OF THE GREAT LAKES 11/	77,699	76,521	71,059	1	,	
FRONTIER OF THE WEST 12/	96,539		1,,555	1		
SNET AMERICA LONG DISTANCE GTE LONG DISTANCE CO.]		į	ì		
CABLE & WIRELESS COMMUNICATIONS	529,398	522,112	513,419	490,228	466,935	448,951
TELEFONICA LARGA DISTANCIA U.S. LONG DISTANCE/ZERO PLUS	442,922	436,695	432,701	425, 334	419,293	393,034
UNITED TELEPHONE LONG DISTANCE	648,131	625,831	639,341	626,850	596,114	500 407
TOUCH 1 COMMUNICATIONS CITIZENS TELECOM		123,133	305,041	020,030	350,114	590, 187
LONG DISTANCE SAVERS	112,905	98,514	97 697			
BUSINESS TELECOM , INC. (BTI)	79,396	30,514	87,687	80,839	77,568	73,696
INTER CONTINENTAL TELEPHONE L.D. SERVICES, INC.		-		1	}	
COASTAL TELEPHONE COMPANY	1	1	ĺ	i		
NATIONAL TELEPHONE COMMUNICATIONS, INC. VARTEC TELECOM, INC.	1	1	}	1	ļ	
CINCINNATI BELL LONG DISTANCE INC.	117,692 93,659	77,258 93,014	90 841	45.074		
GENERAL COMMUNICATIONS, INC.	99,911	91,812	90,841 97,798	85,974 94,229	79,182 93,233	74,387 90,252
ALLTEL LONG DISTANCE SWITCHED SERVICES COMMUNICATIONS 13/	1	1	1	-	30,200	50,252
I ELAMERICA, INC.	94,114	92,719	92,860	91,460	25 201	00.447
ATX TELECOMMUNICATIONS SERVICES ONE CALL COMMUNICATIONS	104,971	86,186	82,303	70,246	85,801	90,887
AMERIVISION COMMUNICATIONS	1	1	1	l	1	
CENTURY AREA LONG LINES]			
ACCESS LONG DISTANCE : OCI (ONCOR)				1		
INTERNATIONAL TELECHARGE	144,511	106,625	87,593		70 840	90.000
COMMONWEALTH LONG DISTANCE (CLD) AMERICAN TELCO, INC.	113,072	103,407	103,684	93,241	72,813	82,085
TWT-HEARTLINE	1	}	ļ			
ACC LONG DISTANCE CORPORATION		1		1	[
MATRIX TELECOM TRESCOM INTERNATIONAL, INC.	1	1	!	į.		
DELTACOM L.D.S.	1	. 1]	1	ļ	
MINSTAR GATEWAY NETWORK, INC MIDCOM COMMUNICATIONS						
COMMUNIQUE TELECOM	189,781	161 300	140.000			
WORLDXCHANGE 14/	103,701	161,398	148,865	133,090	106,892	93,809
CHERRY COMMUNICATIONS LINTEL (LINCOLN)						
SONIC COMMUNICATIONS 15/	90,146	91,420	93,427	93,562	94,183	96,415
TELESPHERE NETWORK 15/	1	1	į	1	1	94,666
PUERTO RICO TEL-COM NETECH COMM, US WEST	1	407.053	}	}	}	79,146
]	107,063		İ		
	1					
TOTAL QUALIFYING CARRIERS	139,963,294	138, 162,070	136,423,594	134,230,099	133,013,454	132,017,921
TOTAL QUALIFYING CARRIERS NON-QUALIFYING CARRIERS TOTAL INDUSTRY PRESUBSCRIBED LINES	139,963,294 2,845,986	138,162,070	136,423,594 2,301,446	134,230,099 2,473,551	133,013,454 2,273,128	132,017,921

....

TABLE 2.1 - PRESUBSCRIBED TELEPHONE LINES BY CARRIER

OTAL NUMBER OF CARRIERS	DEC 90	JUNE 90	DEC 89	JUNE 89	DEC 88	JUNE 88	DEC 87
ITH PRESUBSCRIBED LINES	325	314	302	276	253	242	:
OTAL NUMBER OF QUALIFYING CARRIERS OTAL NUMBER OF NON-QUALIFYING CARRIERS	21 304	20 294	20 282	21 255	21 232	20 222	;
QUALIFYING COMPANIES 1/							
TAT COMPANIES:				ļ		Ì	
AT&T COMMUNICATIONS AT&T ALASCOM, INC. 2/	100,061,611	99,612,725	99,396,609	100,006,827	100,205,677	100,832,869	101,652,6
CI TELECOMMUNICATIONS CORP.	182,341 17,434,898	179,175 16,864,001	168,095	165,332	161,572	157,250	152,
SOUTHERNET	11,404,000	10,364,001	15,055,643	13,671,625	12,149,921 215,384	10,941,207 199,093	9,990,
TELECOM*USA TELECONNECT		712,263	646,084	533,516	215,504	193,093	183,
RINT	8,743,988	8,148,013	8,167,638	7 674 606	247,042	211,949	156,
LA CONEXION FAMILIAR, INC. LONG DISTANCE/USA	4,7.4,000	5,745,515	0,107,030	7,674,605	7,197,136	6,382,372	5,836,
ORLDCOM 3/	116,864	70,781	66,576	ł		81,692	85
ADVANCED TELECOM CORP. (ATC) AMERICAN NETWORK	355,518	372,260	396,319	262,542		į.	
CLAYDESTA DIGITAL		ì	}			1	95
COM SYSTEMS DBA SUN DIAL	118,963	118,225	89,081	87,520	96,914 62,773	78,804	71
ITT METROMEDIA	1	360,551	412,197	425, 109	420,793	394,707	279
MICROTEL	515,711	198,374	207,599	209,036	215,181	211,210	215
MID-AMERICAN				89,367	70,273	63,587	
NATIONAL TELECOMMUNICATIONS		*		69,367	97,526	100,113	96
NTS (NATIONAL TELEPHONE SYSTEMS) TELUS/TELTEC SAVING		67,129	77,667	65,692	ļ		
TOUCH-1 LONG DISTANCE		i	1	134, 150	125,339	117,191	105
WILTEL 4/							
MFS INTELENET, INC. CEL TELECOMMUNICATIONS, INC.	1	ì	Į.	1			
COMPANIES:						İ	
LCI INTERNATIONAL/LITEL 5/	144,926	137,164	123,748	107,302	92,014	}	
LCI CORPORATE TELEMANAGEMENT GROUP LCIAUS SIGNAL CORP. 6/					32,514		
ONTIER COMPANIES: 7/							
FRONTIER dos ALLNET COMM. SVC., INC. 8/	744,452	709,876	677,531	687,097	763,680	818,080	726
FRONTIER COMMUNICATIONS INT'L 9/ FRONTIER COMM-NORTH CENTRAL REGION 10/	171,198	150,069	113,329	98,334	83,383	63,574	720
FRONTIER OF THE GREAT LAKES 11/		ſ	[f		1	
FRONTIER OF THE WEST 12/		İ					
ET AMERICA LONG DISTANCE E LONG DISTANCE CO.						1	
BLE & WRELESS COMMUNICATIONS	422,534	407,906	394,020	350 000			
LEFONICA LARGA DISTANCIA	375,694	407,300	394,020	358,290	304,976	256,786	236
B. LONG DISTANCE/ZERO PLUS ITED TELEPHONE LONG DISTANCE			1	i			
UCH 1 COMMUNICATIONS	548,303	524,477	513,033	430,550	285,385	167,025	82
IZENS TELECOM							
NG DISTANCE SAVERS SINESS TELECOM , INC. (BTI)							
ER CONTINENTAL TELEPHONE					ľ		
SERVICES, INC.						-	
ASTAL TELEPHONE COMPANY TIONAL TELEPHONE COMMUNICATIONS, INC.		1	1				
RTEC TELECOM, INC.							
CINNATI BELL LONG DISTANCE INC.	67,689	ľ	1		Ī	1	
NERAL COMMUNICATIONS, INC. TEL LONG DISTANCE	88,360	82,386	86,089	85,773	83,468	84,807	89
ITCHED SERVICES COMMUNICATIONS 13/		1	ļ	ļ			-
AMERICA, INC.	101,968	102,530	100,213	99,038	90,570	0, 00,	_
K TELECOMMUNICATIONS SERVICES E CALL COMMUNICATIONS			,2.13	23,030	æ,5/U	94,654	94
E CALL COMMUNICATIONS ERMSION COMMUNICATIONS			[· \	•
NTURY AREA LONG LINES	1		}	j	l		
CESS LONG DISTANCE . 1 (ONCOR)		Í	İ			1	
INTERNATIONAL TELECHARGE	83,725	87 754					
MMONWEALTH LONG DISTANCE (CLD)	63,723	87,751	95,252	71,346	l	1	
ERICAN TELCO, INC. T-HEARTLINE							
I-REARTLINE CLONG DISTANCE CORPORATION]	}			1	
TRIX TELECOM		ĺ	1			1	
ESCOM INTERNATIONAL, INC. LTACOM L.D.S.		.	}		1	İ	
ISTAR GATEWAY NETWORK, INC		ŀ]		}		
COM COMMUNICATIONS							
COMMUNIQUE TELECOM			-		Í		
RLDXCHANGE 14/ ERRY COMMUNICATIONS		ļ	İ		1		
TEL (LINCOLN)	99,594	95,126	96,966	02.352			
NIC COMMUNICATIONS 15/	35,034	30,120	30,300	93,353	94,031	92,636	93
.ESPHERE NETWORK 15/ ERTO RICO TEL-COM	111,386	ł	1		ļ	1	
TECH COMM, US WEST	99,821]	ŀ				
TOTAL QUALIFYING CARRIERS	130,589,544	129,000,782	126,883,689	125,356,404	123,063,038	. 121,349,606	120,244
ION-QUALIFYING CARRIERS	1,819,064	1,776,233	1,598,790	1,390,131			
OTAL INDUSTRY PRESUBSCRIBED LINES	132,408,608	130,777,015	128,482,479	126,746,535	1,297,791	1,315,809	1,222
						122,665,415	121,466

,

Notes for Table 2.1 - Presubscribed Telephone Lines by Carrier

- 1/ Information for each qualifying company is only shown for years in which the carrier had at least 0.05% of overall presubscribed lines.
- 2/ Purchased by AT&T in 1995.
- 3/ LDDS/WorldCom changed its name to WorldCom, Inc. in May 1995.
- 4/ WorldCom and Wiltel merged on January 5, 1995.
- 5/ Name changed from Litel, December 1994.
- 6/ Name changed from Teledial America, December 1994.
- 7/ The total number of presubscribed lines reported by Frontier in 1995 and 1996 are only for those subsidiaries which meet the qualifying companies' threshold noted in footnote 1 above.
- 8/ Purchased by Frontier in 1995.
- 9/ Name changed to RCI, December 1994.
- 10/ Formerly American Sharecom; purchased by Frontier in 1995.
- 11/ Formerly Schneider Communications; purchased by Frontier in 1995.
- 12/ Formerly West Coast Telecommunications; purchased by Frontier in 1995.
- 13/ Subsidiary of IXC Communications.
- 14/ Name changed from Communications Telesystems International (CTI) in 1995.
- 15/ Company went bankrupt.

TABLE 2.2 - MARKET SHARE OF PRESUBSCRIBED LINES

	AT&T	MCI	SPRINT	WORLDCOM	OTHER CARRIERS
DEC	83.7 %	8.2 %	4.8 %		3.3 %
JUNE	82.2	8.9	5.2		3.7
DEC	80.6	9.8	5.8		3.9
JUNE	78.9	10.8	6.1	0.0 %	4.3
DEC	77.4	11.7	6.4	0.1	4.5
JUNE	76.2	12.9	6.2	0.1	4.7
DEC	75.6	13.2	6.6	0.1	4.6
JUNE	75.4	13.1	6.5	0.1	4.8
DEC	75.0	13.5	6.2	0.2	5.0
JUNE	74.2	14.0	6.2	0.2	5.4
DEC	73.0	14.5	6.4	0.3	5.8
JUNE	72.4	15.1	6.1	0.7	5.8
DEC	71.2	15.3	6.5	1.2	5.8
JUNE	70.5	15.3	6.4	1.3	6.5
	70.0	14.8	6.4	1.3	7.4
JUNE DEC	68.2 66.4	15.6	6.4	2.4	7.4
		13.7	6.4	2.7	. 8.8
	64.0	15.6	7.0	2.6	10.8 12.1
	JUNE DEC JUNE DEC JUNE DEC JUNE DEC JUNE DEC JUNE DEC JUNE DEC JUNE DEC	DEC 83.7 % JUNE 82.2 DEC 80.6 JUNE 78.9 DEC 77.4 JUNE 76.2 DEC 75.6 JUNE 75.4 DEC 75.0 JUNE 74.2 DEC 73.0 JUNE 72.4 DEC 71.2 JUNE 70.5 DEC 70.0 JUNE 68.2 DEC 66.4 JUNE 64.0	DEC 83.7 % 8.2 % JUNE 82.2 8.9 BOEC 80.6 9.8 JUNE 78.9 10.8 DEC 77.4 11.7 JUNE 76.2 12.9 DEC 75.6 13.2 JUNE 75.4 13.1 DEC 75.0 13.5 JUNE 74.2 14.0 DEC 73.0 14.5 JUNE 72.4 15.1 DEC 70.5 15.3 JUNE 70.5 15.3 DEC 70.0 14.8 JUNE 68.2 15.6 DEC 66.4 15.7 JUNE 64.0 15.6	DEC 83.7 % 8.2 % 4.8 % JUNE 82.2 8.9 5.2 DEC 80.6 9.8 5.8 JUNE 78.9 10.8 6.1 DEC 77.4 11.7 6.4 JUNE 76.2 12.9 6.2 DEC 75.6 13.2 6.6 JUNE 75.4 13.1 6.5 DEC 75.0 13.5 6.2 JUNE 74.2 14.0 6.2 DEC 73.0 14.5 6.4 JUNE 72.4 15.1 6.1 DEC 71.2 15.3 6.5 JUNE 70.5 15.3 6.4 DEC 70.0 14.8 6.4 JUNE 68.2 15.6 6.4 DEC 66.4 15.7 6.4 JUNE 64.0 15.6 7.0	DEC 83.7 % 8.2 % 4.8 % JUNE 82.2 8.9 5.2 DEC 80.6 9.8 5.8 JUNE 78.9 10.8 6.1 0.0 % DEC 77.4 11.7 6.4 0.1 JUNE 76.2 12.9 6.2 0.1 DEC 75.6 13.2 6.6 0.1 JUNE 75.4 13.1 6.5 0.1 DEC 75.0 13.5 6.2 0.2 JUNE 74.2 14.0 6.2 0.2 DEC 73.0 14.5 6.4 0.3 JUNE 72.4 15.1 6.1 0.7 DEC 71.2 15.3 6.5 1.2 JUNE 70.5 15.3 6.4 1.3 DEC 70.0 14.8 6.4 1.3 JUNE 68.2 15.6 6.4 2.4 DEC 66.4 15.7 6.4 2.7 JUNE 64.0 15.6 7.0 2.6

TABLE 2.3 - ANNUAL RATES OF GROWTH OF PRESUBSCRIBED LINES

		AT&T	MCI	SPRINT	WORLDCOM	OTHER CARRIERS	TOTAL INDUSTRY LINES
1987	DEC						
1988	JUNE DEC	-1.4 %	21.6 %	23.3 %		22.1 %	2.4 %
1989	JUNE DEC	-0.8 -0.8	25.0 23.9	20.2 13.5		21.1 18.7	3.3 3.3
1990	JUNE DEC	-0.4 0.7	23.4 15.8	6.2 7.1	75.5 %	10.6 17.3	3.2 3.1
1991	JUNE DEC	1.4 1.4	4.4 5.1	6.8 -4.5	89.4 184.3	19.7 11.8	2.4 2.2
1992	JUNE DEC	0.4 -0.3	9.0 10.0	-3.2 6.0	152.8 45.1	13.2 17.2	2.1 2.5
1993	JUNE DEC	0.4 0.5	10.3 8.2	2.3 4.0	174.9 263.6	11.3 4.7	2.9 2.9
1994	JUNE DEC	0.6 2.2	5.3 1.0	7.2 2.8	96.6 11.5	16.1 32.7	3.3 4.0
1995	JUNE DEC	0.1 -2.5	5.3 8.5	3.7 3.3	101.1 109.2	17.6 21.8	3.5 2.8
1996	JUNE DEC	-2.6 -0.9	3.7. -4.1	13.7	11.6	51.6 43.0	3.8

10

3. TOLL REVENUES

The larger long distance telephone companies (those with over \$109 million in annual operating revenues for calendar year 1996) are required to report their annual revenues to the FCC. Unlike the data on switched access minutes, which exclude intrastate toll calls, the revenues reported include intrastate calls, along with other domestic and interstate calls. For most carriers, no information is publicly available that separates their revenues into interstate versus intrastate service. In 1996, services provided by long distance carriers generated over \$82 billion in revenue. These revenues are shown in Table 3.1. The larger local telephone companies also provide a substantial amount of intrastate toll service. Revenues from the toll traffic handled by local telephone companies remained constant at approximately \$11 billion in 1996. The total toll market is \$93 billion, which is also shown in Table 3.1.

In 1996, AT&T's revenues were \$39 billion, having grown slightly from \$35 billion in 1984. MCI's revenues grew from almost \$2 billion in 1984 to over \$16 billion in 1996. Sprint's revenues grew from about \$1 billion in 1984 to about \$8 billion in 1996. WorldCom's revenues, which were first reported to the FCC in 1989, have grown from \$110 million to over \$4 billion. In 1996, three other companies, Frontier, Excel Telecommunications and LCI, also had long distance revenues exceeding \$1 billion.

Table 3.2 shows market share information based on revenues for long distance carriers and for the total toll market, which includes toll revenues collected by local exchange carriers. AT&T's 1984 toll revenues accounted for about 90% of the revenues received by all long distance carriers and about 68% of all toll calling. In 1996, AT&T's revenues accounted for less than half (48%) of all long distance carrier revenues, and only 42% of all toll calling. MCI's long distance carrier market share has increased from 5% in 1984 to 20% in 1996. Sprint's long distance carrier market share has increased from 3% in 1984 to 10% in 1996. WorldCom's long distance carrier market share has increased from slightly more than 0% in 1989 to 6% in 1996. Smaller long distance carriers increased their share of the market six-fold, growing from less than 3% in 1984 to 17% in 1996.

An annual Hirschman-Herfindahl Index (HHI) also is shown in Table 3.2. The HHI is the sum of squares of the market shares of the companies in a particular industry and is used by the Department of Justice as an initial measure of further concentration in a particular industry resulting from a horizontal merger or acquisition. Since 1984, the HHI has fallen dramatically from 8,155 to 2,823 when calculated based on long distance carrier revenue. The HHI for the total toll market, which includes toll revenues for both long distance carriers and local exchange companies, has fallen from 4,734 to 2,197 over the same period of time.

Table 3.3 shows annual toll revenues divided into three toll categories: intrastate, domestic interstate, and international. Though the total toll revenue figures are composed mostly of telephone service revenues, they also include revenues generated from telegraph, telex, and private line services. The intrastate toll figure includes both intraLATA and interLATA toll revenues. Of considerable interest is the enormous growth (almost 400%) in the international toll market from 1984 to 1996.

Quarterly reports to stockholders (the source for SEC 10Q filings) represent an alternative source of data on revenues. There are, however, usually differences between revenues reported to the FCC and the revenues reported to stockholders. These differences are related to the treatment of access charges, international settlements, and miscellaneous communications revenues that carriers include in the financial reports to stockholders but exclude in reports to the FCC. Quarterly market share

estimates based on financial reports to shareholders are shown in Table 3.4 and are similar to the results produced from annual data.

TABLE 3.1 - TOTAL OPERATING REVENUES OF LONG DISTANCE SERVICE PROVIDERS (DOLLAR AMOUNTS SHOWN IN MILLIONS)

TAT COMPANIES: 1/ ATT COMMUNICATIONS, INC. ALASCOM, INC. MCI TELECOMMUNICATIONS CORP. 2/ TELECOMMUNICATIONS CORP. 2/ TELECOMMUNICATIONS CORP. 2/ TELECOMMUNICATIONS CORP. 2/ TELECOMMUNICATIONS CORP. 3/ ADVANCED TELECOMMUNICATIONS CORP. ADVANCED TELECOMMUNICATIONS CORP. ADVANCED TELECOMMUNICATIONS CORP. ADVANCED TELECOMMUNICATIONS CORP. ADVANCED TELECOMMUNICATIONS CORP. ADVANCED TELECOMMUNICATIONS CORP. ADVANCED TELECOMMUNICATIONS CORP. ITT COMMUNICATION SERVICES, INC. COMPANIER OF THE NORTH CENTRAL REGION FRONTIER COMMUNICATIONS OF THE WEST, INC. LICI INTERNATIONAL TELECOM CORP. LICI INTERNATIONAL TELECOM CORP. LICI INTERNATIONAL TELECOM CORP. ADVANCED TELECOMMUNICATIONS OF THE WEST, INC. LICI INTERNATIONAL TELECOM CORP. LICI INTERNATIONAL TELECOM CORP. LICI INTERNATIONAL TELECOM CORP. LICI INTERNATIONAL TELECOM CORP. LICI INTERNATIONAL TELECOM CORP. LICI INTERNATIONAL TELECOM CORP. LICI INTERNATIONAL TELECOM CORP. LICI INTERNATIONAL TELECOM CORP. LICI INTERNATIONAL TELECOM, INC. ATTO TELECOMMUNICATIONS, INC. USA GLOBAL LINK LICI AND COMMUNICATIONS, INC. USA GLOBAL LINK LICI AND COMMUNICATIONS, INC.						`	
ATAT COMMUNICATIONS, INC. ALASCOM, INC. ALASCOM, INC. ALASCOM, INC. ALASCOM, INC. MICHELECOMMUNICATIONS CORP. 2/ TELECOMMUNICATIONS CO. 3/ SPRINT COMMUNICATIONS CO. 3/ GTE SPRINT US TELECOM, INC. 4/ ADVANCED TELECOMMUNICATIONS CORP. METROMEDIA COMMUNICATIONS CORP. METROMEDIA COMMUNICATIONS CORP. 5/ ITT COMMUNICATION SCRIVICES, INC. COMMYSTERS NETWORK SERVICES WILTEL, INC. MFS INTELLENT, INC. FRONTIER COMM. SVCS. 6bs FRONTIER COMM. SVCS. 7/ LEXITEL FRONTIER COMM. OF THE NORTH CENTRAL REGION FRONTIER COMM. OF THE NORTH CENTRAL REGION FRONTIER COMMUNICATIONS OF THE WEST, INC. LCI INTERNATIONAL TELECOM CORP. LCI INTERNATIONAL TELECOM CORP. ACKEL TELECOM, INC. VARTEC TELEOM, INC. VARTEC TELECOM,	COMPANY	1996	1995	1994	1993	1992	1991
ALASCOM, INC METECOMMUNICATIONS CORP. 2/ TELECOMMUNICATIONS CO. 3/ SPRINT COMMUNICATIONS CO. 3/ ALASCOM, INC. 4/ METECOMMUNICATIONS CO. 3/ SPRINT COMMUNICATIONS CO. 3/ SPRINT COMMUNICATIONS CO. 3/ JOHN ST. 44	T&T COMPANIES: 1/	•					
ALASCOM, INC. MOITELECOMMUNICATIONS CORP. 2/ TELECOMMUNICATIONS CO. 3/ GTE SPRINT US TELECOM MORUNICATIONS CO. 3/ GTE SPRINT US TELECOM MORUNICATIONS CORP. METROMEDIA COMMUNICATIONS CORP. METROMEDIA COMMUNICATIONS CORP. MITE LINC. GORSYSTEMS NETWORK SERVICES MITEL, INC. MFS INTELENET, INC. FRONTIER COMPANIES: 6/ ALINET COMPANIES: 6/ AL	AT&T COMMUNICATIONS, INC.	\$39,264					\$34,384
TELECOM-USA SPRINT COMMUNICATIONS CO. 3/ GTE SPRINT US TELECOM WORLDCOM, INC. 4/ ADVANCED TELECOMMUNICATIONS CORP. METROWEDIA COMMUNICATIONS CORP. 5/ ITT COMMUNICATIONS ERVICES, INC. COMSYSTEMS NETWORK SERVICES MI.TEL, INC. MFS INTELENET, INC. FRONTIER COMPANIES: 6/ ALINET COMPANIES: 6/ ALINET COMPANIES: 6/ ALINET COMPANIES: 6/ ALINET COMPANIES: 6/ ALINET COMMUNICATIONS INTL, INC. 8/ FRONTIER COMMUNICATIONS INTL, INC. 8/ FRONTIER COMMUNICATIONS OF THE WEST, INC. LEXITEL FRONTIER COMMUNICATIONS OF THE WEST, INC. LICI INTERNATIONAL TELECOM CORP. LICI INTERNATIONAL TELECOM CORP. LICI TELECOM, INC. VARTEC TELECOM, INC. TELECOMMUNICATIONS, INC. VARTEC TELECOM, INC. TELECOMMUNICATIONS, INC. USA GLOBAL LINK TELES COMMUNICATIONS, INC. USA GLOBAL LINK TELESCOM INTERNATIONAL, INC. USA GLOBAL LINK TELESCOM INTERNATIONAL, INC. USA GLOBAL LINK TELESCOM INTERNATIONAL, INC. USA GLOBAL LINK TELESCOM INTERNATIONAL, INC. USA GLOBAL LINK TELESCOM INTERNATIONAL, INC. USA GLOBAL LINK TELESCOM INTERNATIONAL, INC. USA GLOBAL LINK TELESCOM INTERNATIONAL, INC. USA GLOBAL LINK TELESCOM INTERNATIONAL, INC. USA GLOBAL LINK TELESCOM INTERNATIONAL, INC. USA GLOBAL LINK TELESCOM INTERNATIONAL, INC. USA GLOBAL LINK TELESCOM INTERNATIONAL, INC. USA GLOBAL LINK TELESCOM INTERNATIONAL, INC. USA GLOBAL LINK TELESCOM INTERNATIONAL, INC. USA GLOBAL LINK TELESCOM INTERNATIONAL, INC. USA GLOBAL LINK TELESCOM INTERNATIONAL, INC. USA GLOBAL COMMUNICATIONS SERVIC	i i	<u> </u>	325	1		I	338
SPRINT COMMUNICATIONS CO. 3/ 7,944 7,277 6,805 6,139 5,658 5 STE SPRINT US TELECOM COMMUNICATIONS CORP. 4,485 3,640 2,221 1,145 801 ADVANCED TELECOMMUNICATIONS CORP. 297 369 ITT COMMUNICATION SERVICES INC. 297 369 ITT COMMUNICATION SERVICES INC. 297 369 ITT COMMUNICATION SERVICES INC. 297 369 ITT COMMUNICATION SERVICES INC. 311 315 WILTEL INC. 122 118 FRONTIER COMPANIES: 6/ 434 494 MFS INTELENET, INC. 122 118 FRONTIER COMMUNICATIONS INTL. INC. 6/ 323 309 306 213 168 FRONTIER COMMUNICATIONS INTL. INC. 6/ 323 309 306 213 168 FRONTIER COMMUNICATIONS INTL. INC. 6/ 323 309 306 213 168 FRONTIER COMMUNICATIONS OF THE WEST, INC. 1,103 361 453 317 EXCEL TELECOM, INC. 1,001 363 158 EXCEL TELECOM, INC. 470 125 107 TELECOMOMUNICATIONS, INC. 354 355 VARTEC TELECOM, INC. 470 125 107 TELECOMOMUNICATIONS, INC. 354 355 TELECOMOMUNICATIONS, INC. 208 209 TAR TELECOMOMUNICATIONS, INC. 208 209 TAR TELECOMOMUNICATIONS, INC. 209 115 USLD COMMUNICATIONS, INC. 209 115 USLD COMMUNICATIONS, INC. 209 109 TAR TELECOMOMUNICATIONS, INC. 209 100 92 TELEGROUP, INC. 9/ 109 109 109 THE FURST GROUP, INC. 9/ 110 109 THE FURST GROUP, INC. 9/ 110 109 THE FURST GROUP, INC. 9/ 110 109 THE FURST GROUP, INC. 9/ 110 109 THE FURST GROUP, INC. 9/ 110 109 THE FURST GROUP, INC. 9/ 110 109 THE FURST GROUP, INC. 9/ 110 109 THE FURST GROUP, INC. 9/ 110 109 THE FURST GROUP, INC. 9/ 110 109 THE FURST GROUP, INC. 9/ 110 109 THE FURS	MCI TELECOMMUNICATIONS CORP. 2/	16,372	14,617	11,715	10,947	9,719	8,266
STEEPOINT USTELECOM WORLDOM, INC. 4 A485 3,640 2,221 1,145 801 ADVANCED TELECOMMUNICATIONS CORP. 297 369 ITT COMMUNICATIONS ERVICES, INC. 116 135					i	ì	
US TELECOM WORLDCOM, INC. 4/ ADVANCED TELECOMMUNICATIONS CORP, METROMEDIA COMMUNICATIONS CORP, 5/ ITT COMMUNICATION SERVICES, INC. 'COMSYSTEM SERVICES WILTEL, INC. MFS INTELENET, INC. MF	SPRINT COMMUNICATIONS CO. 3/	7,944	7,277	6,805	6,139	5,658	5,378
MORLDCOM, INC. 4/ ADVANCED TELECOMMUNICATIONS CORP. 5/ ADVANCED TELECOMMUNICATIONS CORP. 5/ ITT COMMUNICATIONS EXPLORES, INC. 100	GTE SPRINT					1	
ADVANCED TELECOMMUNICATIONS CORP. METROMEDIA COMMUNICATIONS CORP. 5/ ITT COMMUNICATION SERVICES, INC. COMSYSTEMS NETWORK SERVICES WILTEL, INC. MFS INTELENET, INC. FRONTIER COMPANIES: 6/ ALINET COMM. SYCS. dis FRONTIER COMM. SYCS. 7/ LEXITEL FRONTIER COMMUNICATIONS INTIT, INC. 8/ FRONTIER COMMUNICATIONS INTIT, INC. 8/ FRONTIER COMMUNICATIONS OF THE WEST, INC. LICI INTERNATIONAL TELECOM CORP. LICI INTERNATIONAL TELECOM CORP. LICI INTERNATIONAL TELECOM CORP. LICI INTERNATIONAL TELECOM CORP. LICI INTERNATIONAL TELECOM CORP. LICI OF MARKELESS COMMUNICATIONS, INC. 9/ 10/ CABLE & WRELESS COMMUNICATIONS, INC. 9/ 10/ CHERRY COMMUNICATIONS, INC. 9/ 10/ CHERRY COMMUNICATIONS, INC. 9/ 10/ CHERRY COMMUNICATIONS, INC. 9/ 10/ TELE-ASVE, INC. 9/ TELE-ASVE, INC. 9/ TAR TELECOMMUNICATIONS, INC. 204 LUSA GLOBAL LINK 242 LUSA GLOBAL LINK 242 LUSA GLOBAL LINK 242 LUSA COMMUNICATIONS, INC. 204 LUSA COMMUNICATIONS LORD COMMUNICATIONS LORD COMMUNICATIONS LORD COMMUNICATIONS LORD COMMUNICATIONS LORD COMMUNICATIONS LORD COMMUNICATIONS LORD COMMUNICATIONS LORD COM	US TELECOM				i		
METROMEDIA COMMUNICATIONS CORP. 5/ ITT COMMUNICATIONS FRIVCES, INC. 'COMSYSTEMS NETWORK SERVICES WILTEL, INC. MF8 INTELENET, INC. FRONTIER COMM. SVCS. dbs FRONTIER COMM. SVCS. 7/ LEXITEL. FRONTIER COMM. SVCS. dbs FRONTIER COMM. SVCS. 7/ LEXITEL. FRONTIER COMM. SVCS. dbs FRONTIER COMM. SVCS. 7/ LEXITEL. FRONTIER COMM. OF THE NORTH CENTRAL REGION 121 133 123 123 123 124 127 145 147	WORLDCOM, INC. 4/	4,485	3,640	2,221	1,145	801)	263
ITT COMMUNICATION SERVICES INC. COMSYSTEMS NETWORK SERVICES WILTEL, INC. MFS INTELENET, INC. MFS INTELECOM, INC. MFS I	ADVANCED TELECOMMUNICATIONS CORP.						356
COMSYSTEMS NETWORK SERVICES 116 135 13	METROMEDIA COMMUNICATIONS CORP. 5/				297	369	369
COMSYSTEMS NETWORK SERVICES 116 135 13	ITT COMMUNICATION SERVICES, INC.		ĺ				
MFS INTELENET, INC. FRONTIER COMPANIES: 8/ ALLINET COMMS SVCS. dba FRONTIER COMM. SVCS. 7/ LEXITEL FRONTIER COMM OF THE NORTH CENTRAL REGION 121 FRONTIER COMMUNICATIONS INT'L, INC. 8/ FRONTIER COMMUNICATIONS INT'L, INC. 8/ FRONTIER COMMUNICATIONS INT'L, INC. 8/ FRONTIER COMMUNICATIONS OF THE WEST, INC. 127 144 LCI INTERNATIONAL TELECOM CORP. 1, 103 671 453 317 243 EXCEL TELECOMMUNICATIONS, INC. 910/ CABLE & WRELESS COMMUNICATIONS, INC. 919 700 654 557 495 VARTEC TELECOM, INC. 470 125 107 TELCO COMMUNICATIONS GROUP, INC. CHERRY COMMUNICATIONS, INC. 919 71 128 129 129 121 129 120 121 129 121 129 121 129 121 129 121 129 121 129 121 129 121 129 121 129 121 129 121 129 120 120 120 120 120 120 120 120 120 120	1						131
FRONTIER COMPANIES: 6/ ALLNET COMM. SVCS. dba FRONTIER COMM. SVCS. 7/ LEXITEL RRONTIER COMMUNICATIONS INT'L, INC. 8/ FRONTIER COMMUNICATIONS INT'L, INC. 8/ FRONTIER COMMUNICATIONS OF THE WEST, INC. LCI INTERNATIONAL TELECOM CORP. EXCEL TELECOM MINICATIONS, INC. 9/ 10/ VARTEC TELECOM MINICATIONS, INC. 9/ 10/ VARTEC TELECOM, INC. TELECOM MINICATIONS, INC. USA GLOBAL LINK TELE-SAVE, INC. 9/ TELE-SAVE, INC. 9/ TAT SELECOMMUNICATIONS, INC. USA GLOBAL LINK TELE-SAVE, INC. 9/ TAT SELECOMMUNICATIONS, INC. USA GLOBAL LINK TELE-SAVE, INC. 9/ TAT SELECOMMUNICATIONS, INC. USA GLOBAL LINK TELE-SAVE, INC. 9/ TAT SELECOMMUNICATIONS, INC. USA GLOBAL LINK USA GLOBAL LINK TELE-SAVE, INC. 9/ TAT SELECOMMUNICATIONS, INC. USA GLOBAL LINK USA GLOBAL LINK TELE-SAVE, INC. 9/ TAT SELECOMMUNICATIONS, INC. USA GLOBAL LINK TELE-SAVE, INC. 9/ TAT SELECOMMUNICATIONS, INC. USA GLOBAL LINK TELE-SAVE, INC. 9/ TAT SELECOMMUNICATIONS, INC. USA GLOBAL LINK TELE-SAVE, INC. 9/ TAT SELECOMMUNICATIONS, INC. USA GLOBAL LINK TELE-SAVE, INC. 9/ TAT SELECOMMUNICATIONS, INC. USA GLOBAL LINK TELE-SAVE, INC. 9/ TAT SELECOMMUNICATIONS, INC. USA GLOBAL LINK TELE-SAVE, INC. 9/ TAT SELECOMMUNICATIONS, INC. USA GLOBAL LINK TELE-SAVE, INC. 9/ TAT SELECOMMUNICATIONS, INC. USA GLOBAL LINK TELE-SAVE, INC. 9/ TAT SELECOMMUNICATIONS, INC. USA GLOBAL LINK TELE-SAVE, INC. 9/ THE SECOMMUNICATIONS, INC. USA GLOBAL LINK TELE-SAVE TELECOM, INC. 10/ TRESCOM INTERNATIONAL, INC. ACC LONG DISTANCE COPP. PHONETIME, INC. (PTI) ONE CALL COMMUNICATIONS, INC. USA GLOBAL LINK TELESPHER FETWORK EXCHANGE, INC. USA TRESCOM INTERNATIONAL, INC. ACC LONG DISTANCE COPP. THE FURST GROUP, INC. 9/ THE FURST GROUP, INC. 9/ THE FURST GROUP, INC. 9/ THE FURST GROUP, INC. 9/ THE FURST GROUP, INC. 9/ THE FURST GROUP, INC. 9/ THE FURST GROUP, INC. 9/ THE FURST GROUP, INC. 9/ THE FURST GROUP, INC. 9/ THE FURST GROUP, INC. 9/ THE FURST GROUP, INC. 9/ THE FURST GROUP, INC. 9/ THE FURST GROUP, INC. 9/ THE FURST GROUP, INC. 9/ THE FURST GROUP, INC. 9/ THE FURST GROUP, INC. 9/ THE FURS	WILTEL, INC.	1	1	917	664	494	405
ALINET COMM. SVCS. dba FRONTIER COMM. SVCS. 7/ LEXITEL FRONTIER COMMUNICATIONS INT'L, INC. 8/ FRONTIER COMMUNICATIONS INT'L, INC. 8/ FRONTIER COMMUNICATIONS THE WEST, INC. LCI INTERNATIONAL TELECOM CORP. LCI INTERNATIONAL TELECOM CORP. LCI INTERNATIONAL TELECOM, INC. 9/ VARTEC TELECOMMUNICATIONS, INC. 9/ VARTEC TELECOMMUNICATIONS, INC. USA GLOBAL LINK TELESAVE, INC. 9/ TELEGO COMMUNICATIONS, INC. COMMUNIC	MFS INTELENET, INC.	122	118			Į.	
LEXITEL FRONTIER COMMUNICATIONS INT'L, INC. 8/ FRONTIER COMMUNICATIONS OF THE WEST, INC. LCI INTERNATIONAL TELECOM CORP. FRONTIER COMMUNICATIONS, INC. 9/ 10/ EXCEL TELECOMMUNICATIONS, INC. 9/ 10/ TELECO COMMUNICATIONS, INC. 470 EXCEL TELECOM, INC. 470 EXCEL TELECOM, INC. 470 EXCEL TELECOM, INC. 470 EXCEL TELECOM, INC. 470 EXCEL TELECOM, INC. 470 EXCEL TELECOM, INC. 470 EXCEL TELECOM, INC. 470 EXCEL TELECOM, INC. 9/ 213 EXCEL TELECOM, INC. 9/ 213 EXCEL TELECOM, INC. 9/ 213 EXCEL TELECOM, INC. 9/ 213 EXCEL TELECOM, INC. 9/ 213 EXCEL TELECOM, INC. 9/ 213 EXCEL TELECOM, INC. 9/ 213 EXCEL TELECOM, INC. 9/ 213 EXCEL TELECOM, INC. 10/ EXCEL TELECOM, I		`					
LEXITEL FRONTIER COMMUNICATIONS INT'L, INC. 8/ FRONTIER COMM. OF THE NORTH CENTRAL REGION FRONTIER COMM. OF THE NORTH CENTRAL REGION FRONTIER COMM. OF THE NORTH CENTRAL REGION FRONTIER COMMUNICATIONS OF THE WEST, INC. LCI INTERNATIONAL TELECOM CORP. 1,103 671 453 317 243 EXCEL TELECOMMUNICATIONS, INC. 9/ 10/ CABLE & WIRELESS COMMUNICATIONS, INC. VARTEC TELECOM, INC. TELCO COMMUNICATIONS, INC. USA GLOBAL LINK TEL-SAVE, INC. 9/ TAR TELECOMORALICATIONS, INC. COMMUNICATIONS, INC. COMMUNICATIONS, INC. COMMUNICATIONS, INC. COMMUNICATIONS, INC. COMMUNICATION TELESYSTEMS INT'L 9/ USLD COMMUNICATIONS, INC. USLD COMMUNICATIONS, INC. GENERAL COMMUNICATIONS, INC. GENERAL COMMUNICATIONS, INC. GENERAL COMMUNICATIONS, INC. TRESCOM INTERNATIONAL, INC. ACC LONG DISTANCE CORP. HAS 120 TRESCOM INTERNATIONAL, INC. ACC LONG DISTANCE CORP. HAS 120 TONCOR COMMUNICATIONS, INC. GE CAPITAL COMMUNICATIONS, INC. GENERAL COMMUNICATIONS, INC. GENERAL COMMUNICATIONS, INC. GENERAL COMMUNICATIONS, INC. GENERAL COMMUNICATIONS, INC. GENERAL COMMUNI	ALLNET COMM, SVCS, dba FRONTIER COMM, SVCS, 7/	1,119	827	568	436	376	347
FRONTIER COMMUNICATIONS INT*L, INC. 8/ FRONTIER COMM. OF THE NORTH CENTRAL REGION FRONTIER COMM. OF THE NORTH CENTRAL REGION FRONTIER COMMUNICATIONS OF THE WEST, INC. 127 144 LCI INTERNATIONAL TELECOM CORP. EXCEL TELE COMMUNICATIONS, INC. 9/ 10/ CABLE & WIRELESS COMMUNICATIONS, INC. 9/ 10/ CABLE & WIRELESS COMMUNICATIONS, INC. 470 125 VARTEC TELECOMMUNICATIONS, INC. 470 125 TELCO COMMUNICATIONS GROUP, INC. 429 215 CCHERRY COMMUNICATIONS, INC. 334 USA GLOBAL LINK TEL-SAVE, INC. 9/ TELEGROUP, INC. 9/ TELEGROUP, INC. 9/ TAR TELECOMMUNICATIONS, INC. 208 CC COMMUNICATIONS, INC. 204 USD COMMUNICATIONS, INC. 204 USD COMMUNICATIONS, INC. 199 USLD COMMUNICATIONS CORP. 11/ PACIFIC GATEWAY EXCHANGE, INC. 162 BUSINESS TELECOM, INC. 12/ MIDCOM COMMUNICATION, INC. 13/ TRESCOM INTERNATIONAL, INC. 14/ MIDCOM COMMUNICATIONS, INC. 14/ ACC LONG DISTANCE CORP. 118 PHONETIME, INC. (PTI) ONE CALL COMMUNICATIONS, INC. 9/ THE FURST GROUP, INC. 9/ THE FURST GROUP, INC. 9/ THE FURST GROUP, INC. 9/ AMERICAN NETWORK EXCHANGE, INC. 14/ (INATIONAL TELEPHONE SERVICES, INC.) OTHERS 15/ TOLL SERVICE REVENUES: 1333 309 306 121 33 123 123 124 127 144 453 317 243 243 243 243 245 215 215 215 215 215 215 215 215 215 21		-					
FRONTIER COMM. OF THE NORTH CENTRAL REGION 121 133 123 124 127 144 144 127 144 144 127 144 145 144 145 1	1	323	309	306	213	168	155
FRONTIER COMMUNICATIONS OF THE WEST, INC. 127		121	133	123			
LCI INTERNATIONAL TELECOM CORP. EXCEL TELECOMMUNICATIONS, INC. 9/10/ CABLE & WIRELESS COMMUNICATIONS, INC. WARTEC TELECOM, INC. TELCO COMMUNICATIONS, INC. VARTEC TELECOM, INC. TELCO COMMUNICATIONS, INC. USA GLOBAL LINK TEL-SAVE, INC. 9/ TELEGROUP, INC. 9/ TAR TELECOMMUNICATIONS, INC. USA GLOBAL LINK TOWN 1/25/ TELEOCOMMUNICATIONS, INC. C COMMUNICATION, INC. C COMMUNICATION, INC. USA GLOBAL LINK TEL-SAVE, INC. 9/ TAR TELECOMMUNICATIONS, INC. C COMMUNICATION, INC. USA DOMMUNICATION TELESYSTEMS INT'L. 9/ USLD COMMUNICATION CORP. 11/ PACIFIC GATEWAY EXCHANGE, INC. BUSINESS TELECOM, INC. 12/ MIDCOM COMMUNICATIONS, INC. GENERAL COMMUNICATION, INC. 13/ TRESCOM INTERNATIONAL, INC. ACC LONG DISTANCE CORP. PHONETIME, INC. (PTI) ONE CALL COMMUNICATIONS, INC. GE CAPITAL COMMUNICATIONS, INC. GE CAPITAL COMMUNICATIONS, INC. 9/ THE FURST GROUP, INC. 9/ THE FURST GROUP, INC. 9/ THE FURST GROUP, INC. 9/ THE FURST GROUP, INC. 9/ AMERICAN NETWORK EXCHANGE, INC. OTHERS 15/ TOLL SERVICE REVENUES: 1014 105 107 107 107 107 107 107 108 109 109 109 109 109 109 109			127	144			
EXCEL TELECOMMUNICATIONS, INC. 9/10/ CABLE & WRELESS COMMUNICATIONS, INC. VARTEC TELECOM, INC. TELCO COMMUNICATIONS GROUP, INC. CHERRY COMMUNICATIONS, INC. USA GLOBAL LINK TEL-SAVE, INC. 9/ TAR TELECOMMUNICATIONS, INC. COMMUNICATION, INC. COMMUNI		1.103	1	453	317	243	208
CABLE & WRELESS COMMUNICATIONS, INC. 919 700 654 557 495 VARTEC TELECOM, INC. 470 125 107 TELCO COMMUNICATIONS GROUP, INC. 429 215 CHERRY COMMUNICATIONS, INC. 354 USA GLOBAL LINK 242 TEL-SAVE, INC. 9 232 180 TELEGROUP, INC. 9 213 129 TAR TELECOMMUNICATIONS, INC. 204 208 CC COMMUNICATIONS, INC. 204 204 COMMUNICATIONS, INC. 204 204 205 CC COMMUNICATIONS CORP. 117 188 155 136 100 PACIFIC GATEWAY EXCHANGE, INC. 162 BUSINESS TELECOM, INC. 127 149 115 MIDCOM COMMUNICATION, INC. 137 143 120 106 92 TRESCOM INTERNATIONAL, INC. 147 204 109 GENERAL COMMUNICATION, INC. 137 143 120 106 92 TRESCOM INTERNATIONAL, INC. 140 CAC LONG DISTANCE CORP. 118 PHONETIME, INC. (PTI) 117 ONE CALL COMMUNICATIONS, INC. 97 117 ONE CALL COMMUNICATIONS, INC. 97 110 117 ONE CALL COMMUNICATIONS, INC. 97 110 117 ONE CALL COMMUNICATIONS, INC. 97 110 109 TELESPHERE NETWORK EXCHANGE, INC. 147 (NATIONAL TELEPHONE SERVICES, INC.) 101 109 TELESPHERE NETWORK, INC. 147 (NATIONAL TELEPHONE SERVICES, INC.) 101 109 TELESPHERE NETWORK, INC. 147 (NATIONAL TELEPHONE SERVICES, INC.) 110 109 TELESPHERE NETWORK EXCHANGE, INC. 147 (NATIONAL TELEPHONE SERVICES, INC.) 110 109 TELESPHERE NETWORK EXCHANGE, INC. 147 (NATIONAL TELEPHONE SERVICES, INC.) 149 243 243 243 243 243 243 243 243 243 243	1						
VARTEC TELECOM, INC. TELCO COMMUNICATIONS GROUP, INC. CHERRY COMMUNICATIONS, INC. USA GLOBAL LINK TEL-SAVE, INC. 9/ TELEGROUP, INC. 9/ TAR TELECOMMUNICATIONS, INC. COMMUNICATION SINC. COMMUNICATION TELESYSTEMS INT'L. 9/ USLD COMMUNICATIONS CORP. 11/ PACIFIC GATEWAY EXCHANGE, INC. BUSINESS TELECOM, INC. 12/ MIDCOM COMMUNICATION, INC. GENERAL COMMUNICATION, INC. 162 MIDCOM COMMUNICATION, INC. 163 TRESCOM INTERNATIONAL, INC. 149 CC LONG DISTANCE CORP. 118 PHONETIME, INC. (PTI) ONE CALL COMMUNICATIONS, INC. GE CAPITAL COMMUNICATIONS, INC. GE CAPITAL COMMUNICATIONS, INC. GE CAPITAL COMMUNICATIONS, INC. THE FURST GROUP, INC. 9/ AMERICAN NETWORK EXCHANGE, INC. THE FURST GROUP, INC. 9/ AMERICAN NETWORK EXCHANGE, INC. TELESPHERE NETWORK, INC. 14/ (NATIONAL TELEPHONE SERVICES, INC.) OTHERS 15/ TOLL SERVICE REVENUES:					557	495	406
TELCO COMMUNICATIONS GROUP, INC. CHERRY COMMUNICATIONS, INC. USA GLOBAL LINK TEL-SAVE, INC. 9/ TELEGROUP, INC. 9/ TELEGROUP, INC. 9/ TAR TELECOMMUNICATIONS, INC. COMMUNICATIONS, INC. COMMUNICATIONS, INC. COMMUNICATIONS, INC. COMMUNICATION TELESYSTEMS INT'L. 9/ USLO COMMUNICATION CORP. 11/ PACIFIC GATEWAY EXCHANGE, INC. BUSINESS TELECOM, INC. 12/ MIDCOM COMMUNICATION, INC. 13/ TRESCOM INTERNATIONAL, INC. TRESCOM INTERNATIONAL, INC. COMMUNICATIONS, INC. TRESCOM INTERNATIONAL, INC. TRESCOM INTERNATIONAL, INC. TONE CALL COMMUNICATIONS, INC. TONE CALL COMMUNICATIONS, INC. TONE CALL COMMUNICATIONS, INC. TONE CALL COMMUNICATIONS, INC. THE FURST GROUP, INC. 9/ AMERICAN NETWORK EXCHANGE, INC. THE FURST GROUP, INC. 9/ AMERICAN NETWORK EXCHANGE, INC. THE FURST GROUP, INC. 9/ AMERICAN NETWORK EXCHANGE, INC. THE FURST GROUP, INC. 9/ AMERICAN NETWORK EXCHANGE, INC. THE FURST GROUP, INC. 9/ AMERICAN NETWORK EXCHANGE, INC. THE FURST GROUP, INC. 9/ THE FURST GROUP, INC. 9/ THE FURST GROUP, INC. 9/ THE FURST GROUP, INC. 9/ THE FURST GROUP, INC. 9/ THE FURST GROUP, INC. 9/ THE FURST GROUP, INC. 9/ THE FURST GROUP FINC. 9/		1		1		-	
CHERRY COMMUNICATIONS, INC. USA GLOBAL LINK TEL-SAVE, INC. 9/ **ELEGROUP, INC. 9/ **TELECOMMUNICATIONS, INC. C COMMUNICATIONS, INC. **OMMUNICATION TELESYSTEMS INT'L. 9/ USLD COMMUNICATIONS CORP. 11/ PACIFIC GATEWAY EXCHANGE, INC. BUSINESS TELECOM, INC. 12/ MIDCOM COMMUNICATIONS, INC. GENERAL COMMUNICATIONS, INC. GENERAL COMMUNICATION, INC. 13/ TRESCOM INTERNATIONAL, INC. ACC LONG DISTANCE CORP. PHONETIME, INC. (PTI) ONC CALL COMMUNICATIONS, INC. GE CAPITAL COMMUNICATIONS, INC. 114 GE CAPITAL COMMUNICATIONS, INC. 1159 TOLL SERVICE REVENUES:	1			,			
USA GLOBAL LINK TEL-SAVE, INC. 9/ **TELEGROUP, INC. 9/ TAR TELECOMMUNICATIONS, INC. **C COMMUNICATION S, INC. **USLD COMMUNICATION S CORP. 11/ PACIFIC GATEWAY EXCHANGE, INC. BUSINESS TELECOM, INC. 12/ MIDCOM COMMUNICATION, INC. 13/ TRESCOM INTERNATIONAL, INC. ACC LONG DISTANCE CORP. PHONETIME, INC. (PTI) ONE CALL COMMUNICATIONS, INC. GE CAPITAL COMMUNICATIONS, INC. GE CAPITAL COMMUNICATION, INC. THE FURST GROUP, INC. 9/ AMERICAN NETWORK EXCHANGE, INC. ONCOR COMMUNICATION, INC. THE FURST GROUP, INC. 9/ AMERICAN NETWORK EXCHANGE, INC. OTHERS 15/ **TOLL SERVICE REVENUES:** TOLL SERVICE REVENUES: 180 232 133 129 135 100 100 100 100 100 100 100 100 100 10			2.0			j	
TEL-SAVE, INC. 9/ TELEGROUP, INC. 9/ TELEGROUP, INC. 9/ TAT TELECOMMUNICATIONS, INC. C COMMUNICATIONS, INC. C COMMUNICATION TELESYSTEMS INT'L. 9/ USLD COMMUNICATIONS CORP. 11/ PACIFIC GATEWAY EXCHANGE, INC. BUSINESS TELECOM, INC. 12/ MIDCOM COMMUNICATION, INC. 13/ GENERAL COMMUNICATION, INC. 13/ TRESCOM INTERNATIONAL, INC. ACC LONG DISTANCE CORP. PHONETIME, INC. (PTI) ONE CALL COMMUNICATIONS, INC. GE CAPITAL COMMUNICATIONS, INC. GE CAPITAL COMMUNICATIONS SERVICES CORP. 9/ ONCOR COMMUNICATIONS, INC. 9/ THE FURST GROUP, INC. 9/ AMERICAN NETWORK EXCHANGE, INC. TELESPHERE NETWORK, INC. 14/ (NATIONAL TELEPHONE SERVICES, INC.) OTHERS 15/ TOLL SERVICE REVENUES:		i,					
TELEGROUP, INC. 9/ TAR TELECOMMUNICATIONS, INC. C COMMUNICATIONS, INC. DOMMUNICATION TELESYSTEMS INT'L. 9/ USLD COMMUNICATIONS CORP, 11/ PACIFIC GATEWAY EXCHANGE, INC. BUSINESS TELECOM, INC. 12/ MIDCOM COMMUNICATIONS, INC. GENERAL COMMUNICATION, INC. 13/ TRESCOM INTERNATIONAL, INC. ACC LONG DISTANCE CORP. PHONETIME, INC. (PTI) ONE CALL COMMUNICATIONS, INC. GE CAPITAL COMMUNICATIONS, INC. GE CAPITAL COMMUNICATIONS, INC. GE CAPITAL COMMUNICATIONS, INC. GE CAPITAL COMMUNICATIONS, INC. GE CAPITAL COMMUNICATIONS, INC. 9/ ONCOR COMMUNICATIONS, INC. 9/ THE FURST GROUP, INC. 9/ AMERICAN NETWORK EXCHANGE, INC. TELESPHERE NETWORK, INC. 14/ (NATIONAL TELEPHONE SERVICES, INC.) OTHERS 15/ TOLL SERVICE REVENUES:			180	ļ			
TAR TELECOMMUNICATIONS, INC. 'C COMMUNICATIONS, INC. 'DOMMUNICATION TELESYSTEMS INT'L. 9/ USLD COMMUNICATIONS CORP. 11/ PACIFIC GATEWAY EXCHANGE, INC. BUSINESS TELECOM, INC. 12/ MIDCOM COMMUNICATION, INC. GENERAL COMMUNICATION, INC. 13/ TRESCOM INTERNATIONAL, INC. ACC LONG DISTANCE CORP. PHONETIME, INC. (PTI) ONE CALL COMMUNICATIONS, INC. GE CAPITAL COMMUNICATIONS, INC. GE CAPITAL COMMUNICATIONS SERVICES CORP. 9/ ONCOR COMMUNICATIONS, INC. 9/ THE FURST GROUP, INC. 9/ AMERICAN NETWORK EXCHANGE, INC. OTHERS 15/ OTHERS 15/ TOLL SERVICE REVENUES:			ľ				
C COMMUNICATIONS, INC. COMMUNICATION TELESYSTEMS INT'L. 9/ USLD COMMUNICATIONS CORP. 11/ PACIFIC GATEVAY EXCHANGE, INC. BUSINESS TELECOM, INC. 12/ MIDCOM COMMUNICATIONS, INC. GENERAL COMMUNICATIONS, INC. ACC LONG DISTANCE CORP. PHONETIME, INC. (PTI) ONE CALL COMMUNICATIONS, INC. GE CAPITAL COMMUNICATIONS, INC. GE CAPITAL COMMUNICATIONS, INC. GE CAPITAL COMMUNICATIONS, INC. GE CAPITAL COMMUNICATIONS, INC. GE CAPITAL COMMUNICATIONS, INC. GE CAPITAL COMMUNICATIONS, INC. GE CAPITAL COMMUNICATIONS, INC. 9/ THE FURST GROUP, INC. 9/ THE FURST GROUP, INC. 9/ THE FURST GROUP, INC. 9/ THE FURST GROUP, INC. 9/ THE FURST GROUP, INC. 14/ (NATIONAL TELEPHONE SERVICES, INC.) OTHERS 15/ TOLL SERVICE REVENUES:			120				
OMMUNICATION TELESYSTEMS INT'L. 9/ USLD COMMUNICATIONS CORP. 11/ PACIFIC GATEWAY EXCHANGE, INC. BUSINESS TELECOM, INC. 12/ MIDCOM COMMUNICATIONS, INC. GENERAL COMMUNICATION, INC. 13/ TRESCOM INTERNATIONAL, INC. ACC LONG DISTANCE CORP. PHONETIME, INC. (PTI) ONE CALL COMMUNICATIONS, INC. GE CAPITAL COMMUNICATIONS, INC. GE CAPITAL COMMUNICATIONS SERVICES CORP. 9/ ONCOR COMMUNICATIONS SERVICES CORP. 9/ ONCOR COMMUNICATIONS, INC. 9/ THE FURST GROUP, INC. 9/ AMERICAN NETWORK EXCHANGE, INC. TELESPHERE NETWORK, INC. 14/ (NATIONAL TELEPHONE SERVICES, INC.) OTHERS 15/ TOLL SERVICE REVENUES:							
USLD COMMUNICATIONS CORP. 11/ PACIFIC GATEWAY EXCHANGE, INC. BUSINESS TELECOM, INC. 12/ MIDCOM COMMUNICATIONS, INC. GENERAL COMMUNICATION, INC. 13/ TRESCOM INTERNATIONAL, INC. ACC LONG DISTANCE CORP. PHONETIME, INC. (PTI) ONE CALL COMMUNICATIONS, INC. GE CAPITAL COMMUNICATIONS SERVICES CORP. 9/ ONCOR COMMUNICATIONS, INC. 9/ THE FURST GROUP, INC. 9/ AMERICAN NETWORK EXCHANGE, INC. TELESPHERE NETWORK, INC. 14/ (NATIONAL TELEPHONE SERVICES, INC.) OTHERS 15/ TOLL SERVICE REVENUES: 188		1	115				
PACIFIC GATEWAY EXCHANGE, INC. BUSINESS TELECOM, INC. 12/ MIDCOM COMMUNICATIONS, INC. GENERAL COMMUNICATION, INC. 13/ TRESCOM INTERNATIONAL, INC. ACC LONG DISTANCE CORP. PHONETIME, INC. (PTI) ONE CALL COMMUNICATIONS, INC. GE CAPITAL COMMUNICATIONS, INC. GE CAPITAL COMMUNICATIONS, INC. 9/ THE FURST GROUP, INC. 9/ AMERICAN NETWORK EXCHANGE, INC. TELESPHERE NETWORK, INC. 14/ (NATIONAL TELEPHONE SERVICES, INC.) OTHERS 15/ TOLL SERVICE REVENUES:		1		136	100		
BUSINESS TELECOM, INC. 12/ MIDCOM COMMUNICATIONS, INC. GENERAL COMMUNICATION, INC. 13/ TRESCOM INTERNATIONAL, INC. ACC LONG DISTANCE CORP. PHONETIME, INC. (PTI) ONE CALL COMMUNICATIONS, INC. GE CAPITAL COMMUNICATIONS SERVICES CORP. 9/ ONCOR COMMUNICATIONS, INC. 9/ THE FURST GROUP, INC. 9/ AMERICAN NETWORK EXCHANGE, INC. TELESPHERE NETWORK, INC. 14/ (NATIONAL TELEPHONE SERVICES, INC.) OTHERS 15/ TOLL SERVICE REVENUES:		•	133	130	100		
MIDCOM COMMUNICATIONS, INC. GENERAL COMMUNICATION, INC. 13/ TRESCOM INTERNATIONAL, INC. ACC LONG DISTANCE CORP. PHONETIME, INC. (PTI) ONE CALL COMMUNICATIONS, INC. GE CAPITAL COMMUNICATIONS SERVICES CORP. 9/ ONCOR COMMUNICATIONS, INC. 9/ THE FURST GROUP, INC. 9/ AMERICAN NETWORK EXCHANGE, INC. TELESPHERE NETWORK, INC. 14/ (NATIONAL TELEPHONE SERVICES, INC.) OTHERS 15/ TOLL SERVICE REVENUES:	· ·		115				
GENERAL COMMUNICATION, INC. 13/				100			
TRESCOM INTERNATIONAL, INC. ACC LONG DISTANCE CORP. PHONETIME, INC. (PTI) ONE CALL COMMUNICATIONS, INC. GE CAPITAL COMMUNICATIONS SERVICES CORP. 9/ ONCOR COMMUNICATIONS, INC. 9/ THE FURST GROUP, INC. 9/ AMERICAN NETWORK EXCHANGE, INC. TELESPHERE NETWORK, INC. 14/ (NATIONAL TELEPHONE SERVICES, INC.) OTHERS 15/ TOLL SERVICE REVENUES:	·		1		92	·	
ACC LONG DISTANCE CORP. PHONETIME, INC. (PTI) ONE CALL COMMUNICATIONS, INC. GE CAPITAL COMMUNICATIONS SERVICES CORP. 9/ ONCOR COMMUNICATIONS, INC. 9/ THE FURST GROUP, INC. 9/ AMERICAN NETWORK EXCHANGE, INC. TELESPHERE NETWORK, INC. 14/ (NATIONAL TELEPHONE SERVICES, INC.) OTHERS 15/ TOLL SERVICE REVENUES: 118 117 118 117 110 120 111 172 140 159 109 109 109 109 109 109 10			120	100	92	1	
PHONETIME, INC. (PTI) ONE CALL COMMUNICATIONS, INC. GE CAPITAL COMMUNICATIONS SERVICES CORP. 9/ ONCOR COMMUNICATIONS, INC. 9/ THE FURST GROUP, INC. 9/ AMERICAN NETWORK EXCHANGE, INC. TELESPHERE NETWORK, INC. 14/ (NATIONAL TELEPHONE SERVICES, INC.) OTHERS 15/ TOLL SERVICE REVENUES:				İ		1	
ONE CALL COMMUNICATIONS, INC. GE CAPITAL COMMUNICATIONS SERVICES CORP. 9/ ONCOR COMMUNICATIONS, INC. 9/ THE FURST GROUP, INC. 9/ AMERICAN NETWORK EXCHANGE, INC. TELESPHERE NETWORK, INC. 14/ (NATIONAL TELEPHONE SERVICES, INC.) OTHERS 15/ TOLL SERVICE REVENUES:							
GE CAPITAL COMMUNICATIONS SERVICES CORP. 9/ ONCOR COMMUNICATIONS, INC. 9/ THE FURST GROUP, INC. 9/ AMERICAN NETWORK EXCHANGE, INC. TELESPHERE NETWORK, INC. 14/ (NATIONAL TELEPHONE SERVICES, INC.) OTHERS 15/ TOLL SERVICE REVENUES:						1	
ONCOR COMMUNICATIONS, INC. 9/ THE FURST GROUP, INC. 9/ AMERICAN NETWORK EXCHANGE, INC. TELESPHERE NETWORK, INC. 14/ (NATIONAL TELEPHONE SERVICES, INC.) OTHERS 15/ TOLL SERVICE REVENUES: 111 172 140 159 109 109 101 109 109 101 109 109 101 109 109 109 109 109 109 109 109 109 109		114	420				
THE FURST GROUP, INC. 9/ AMERICAN NETWORK EXCHANGE, INC. 109 TELESPHERE NETWORK, INC. 14/ (NATIONAL TELEPHONE SERVICES, INC.) OTHERS 15/ . 5,342 5,168 5,055 4,319 3,923 TOTAL SERVICE REVENUES:				470	4.40	450	40.
AMERICAN NETWORK EXCHANGE, INC. TELESPHERE NETWORK, INC. 14/ (NATIONAL TELEPHONE SERVICES, INC.) OTHERS 15/ OTHERS 15/ TOLL SERVICE REVENUES: 101 109 109 109 101 109 109 101 109 109				1/2	140	159	18
TELESPHERE NETWORK, INC. 14/ (NATIONAL TELEPHONE SERVICES, INC.) OTHERS 15/ - 5,342 5,168 5,055 4,319 3,923 TOTAL DOIS DISTANCE CARRIERS TOLL SERVICE REVENUES:				400			ļ
(NATIONAL TELEPHONE SERVICES, INC.) OTHERS 15/ **5,342** 5,168** 5,055** 4,319** 3,923** TOTAL SOURCE CARRIERS TOLL SERVICE REVENUES:			וטר	109			
OTHERS 15/ • 5,342 5,168 5,055 4,319 3,923 TOTAL LONG DISTANCE CARRIERS 87,033 74,143 67,351 98,335 58,365 TOLL SERVICE REVENUES: 87,033 74,143 67,351 98,335 58,365	· ·						30
TCTAL LONG DISTANCE CARRIERS 87.033 74.143 87.351 91.339 58.366 S TOLL SERVICE REVENUES:	(NATIONAL TELEPHONE SERVICES, INC.)						
TOTAL LONG DISTANCE CARRIERS 87.033 74.143 67.351 61.339 58.366 5 TOLL SERVICE REVENUES:	OTHERS 15/	5 240	E 400	E 055	4 240	2 22	204
TOLL SERVICE REVENUES:	OTRENS 15/	• 5,342	5,100	5,055	4,319	3,923	2,94
TOLL SERVICE REVENUES:	TATE YOUR DISTANCE ASSOCIATE		78 4 80				54.44
				07,001			
Innii anni anii anii anii anii anii anii	TOLL SERVICE REVENUES:						
	BELL OPERATING COMPANIES	7,950	8,189	9,527	9,849	9,718	10,06
	OTHER LOCAL TELEPHONE COMPANIES 15/	3,298	3,143	3,848			4,04
TOTAL LOCAL EXCHANGE COMPANIES 11,248 11,332 13,375 13,757 13,615 1	TOTAL LOCAL EXCHANGE COMPANIES	11,248	11,332	13,375	13,757	13,615	14,11
					}		
TOTAL REVENUES OF LONG DISTANCE SERVICE PROVIDERS \$80,281 \$86,475 \$90,726 \$76,260 \$71,985 \$9							***************

TABLE 3.1 - TOTAL OPERATING REVENUES OF LONG DISTANCE SERVICE PROVIDERS (CONT'D) (DOLLAR AMOUNTS SHOWN IN MILLIONS)

·						*	
COMPANY	1990	1989	1988	1987	1986	1985	1984
T&T COMPANIES: 1/				205.040	200 544		
AT&T COMMUNICATIONS, INC.	\$33,880	\$34,549	\$35,407	\$35,219	\$36,514	\$36,770	\$34,935
ALASCOM, INC.	259	278	272	262	267	271	255
MCI TELECOMMUNICATIONS CORP. 2/	7,392	6,171	4,886	3,938	3,372	2,331	1,761
TELECOM*USA		713	524	396	291	201	105
SPRINT COMMUNICATIONS CO. 3/	5,041	4,320	3,405	2,592	1,141		
GTE SPRINT			i	1	779	1,122	1,052
US TELECOM				1	212	387	
WORLDCOM, INC. 4/	154	110	1	ì	ĺ	1	
ADVANCED TELECOMMUNICATIONS CORP.	342	326	178	162	124	86	72
METROMEDIA COMMUNICATIONS CORP. 5/	381	127					
ITT COMMUNICATION SERVICES, INC.	33.	404	379	287	282	241	161
COMSYSTEMS NETWORK SERVICES	130		5.5	[
1	376	300		Ì	1	ĺ	
WILTEL, INC.	3,0	300		1			
MFS INTELENET, INC.						!	
FRONTIER COMPANIES: 6/	226	224	394	395	450	309	
ALLNET COMM, SVCS, dba FRONTIÉR COMM, SVCS, 7/	326	334	394	393	450	1	
LEXITEL				l		127	
FRONTIER COMMUNICATIONS INT'L, INC. 8/	142	104		1		1	
FRONTIER COMM. OF THE NORTH CENTRAL REGION		į				1	
FRONTIER COMMUNICATIONS OF THE WEST, INC.			i				
LCI INTERNATIONAL TELECOM CORP.	215	197		1	Ì		
EXCEL TELECOMMUNICATIONS, INC. 9/ 10/				ĺ			
CABLE & WIRELESS COMMUNICATIONS, INC.	359	275	218	180	171	146	
VARTEC TELECOM, INC.					ļ		
TELCO COMMUNICATIONS GROUP, INC.		l		Į		ļ	
CHERRY COMMUNICATIONS, INC.		}			i		
USA GLOBAL LINK		1					
TEL-SAVE, INC. 9/							
TELEGROUP, INC. 9/	[
STAR TELECOMMUNICATIONS, INC.			l	i		1	
•	1		İ				
IXC COMMUNICATIONS, INC.						ı	
COMMUNICATION TELESYSTEMS INTL. 9/							
JSLD COMMUNICATIONS CORP. 11/						1	
PACIFIC GATEWAY EXCHANGE, INC.	ì			'		1	
JUSINESS TELECOM, INC. 12/						İ	
MIDCOM COMMUNICATIONS, INC.							
GENERAL COMMUNICATION, INC. 13/							
TRESCOM INTERNATIONAL, INC.		.				1	
ACC LONG DISTANCE CORP.							
PHONETIME, INC. (PTI)					l i		
ONE CALL COMMUNICATIONS, INC.							
GE CAPITAL COMMUNICATIONS SERVICES CORP. 9/		İ					
ONCOR COMMUNICATIONS, INC. 9/	230	275			}		
THE FURST GROUP, INC. 9/						İ	
AMERICAN NETWORK EXCHANGE, INC.							
TELESPHERE NETWORK, INC. 14/	293	192				•	
(NATIONAL TELEPHONE SERVICES, INC.)	250	150					
	1	, , ,					
OTHERS 15/	2,582	2,359	1,823	1,352	992	639	414
TOTAL COMO DISTANCE CARRIERS	52,102	51 184	47,487	44,763	44,506	42,830	3875
TOLL SERVICE REVENUES:							
RELL ODERATING COMPANIES	40.570	10 510	40.000	40.000	0.500	0.000	0.00
BELL OPERATING COMPANIES	10,578	, ,	10,668		1		9,03
OTHER LOCAL TELEPHONE COMPANIES 15/	4,112	4,291	4,445	3,468	3,274	3,159	3,36
TOTAL LOCAL EVOLUNIOS COMPANIES	4,	4.0.0	45.1.	40		40	40.40
TOTAL LOCAL EXCHANGE COMPANIES	14,690	14,840	15,113	13,736	12,873	12,185	12,40
1	348,772	\$55.024	l .	1	1		

Notes for Table 3.1 - Total Toll Service Revenues

- 1/ AT&T acquired Alascom August 7, 1995. Each filed separate revenues for 1994 and 1995. In 1996, AT&T and Alascom began filing as a consolidated entity.
- 2/ MCI Telecommunications and Telecom*USA merged in 1989. With the 1996 filing, MCI revised its 1995 revenues. MCI previously reported total operating revenues by SIC code. In its 1995 Annual Report to shareholders, MCI separated its core telecommunications services business from its business ventures and developing markets businesses. Its revenues for 1995 and 1996 now reflect core business information only.
- 3/ In July 1986, GTE Sprint and US Telecom merged into US Sprint. The information shown for GTE Sprint and US Telecom for 1986 is for January 1 June 30. The information shown for US Sprint for 1986 is for July 1 December 31. Effective February 26, 1992, the company's name became Sprint Communications Company.
- 4/ LDDS Communications Inc. (which changed its name to WorldCom, Inc. in May 1995) and Advanced Telecommunications Corp. merged in 1992. In 1993, LDDS merged with Metromedia Communications Corp. and Comsystems Network Services. For 1993, only the revenues that were received after the merger are included in LDDS's revenues. Those revenues up to the merger are listed individually for 1993. LDDS and Wiltel merged January 5, 1995. WorldCom acquired MFS Intelenet on December 31, 1996.
- 5/ Metromedia Communications Corp. and ITT Communications Corp. merged during 1988. Information for 1989 was reported separately.
- 6/ Frontier Corporation, the parent company of Frontier Communications International, Inc., acquired ALC Communications, the parent company of AllNet, on August 16, 1995. On May 18, 1995, Frontier Corporation aquired WCT Communications, the parent company of West Coast Telecommunications, which is now known as Frontier Communications of the West, Inc. In addition, on March 17, 1995, Frontier Corporation acquired American Sharecom, which is now known as Frontier Communications of the North Central Region.
- 7/ Allnet and Lexitel merged at the end of 1985.
- 8/ Name changed to RCI Long Distance Inc. in 1994.
- 9/ Company indicated it is strictly a reseller.
- 10/ Excludes \$261 million from marketing services in 1996 and \$143 million in 1995.
- 11/ Name changed from U.S. Long Distance, Inc. in September 1997.
- 12/ Data from the Annual Report to the Colorado Public Utilities Commission for the year ended 1996 for telecommunications carriers regulated pursuant to §40-15-301 C.R.S.
- 13/ Does not include \$10 million from non-communications operations in 1993, \$11 million in 1994, \$9 million in 1995, and \$13 million in 1996.
- 14/ Telesphere Network, Inc. and National Telephone Services, Inc. merged during 1989. In 1991 Telesphere Network, Inc. went into bankruptcy.

۲.

15/ Estimated by FCC staff.

TABLE 3.2 - REVENUES: MARKET SHARE

YEAR	AT&T	MCI	SPRINT	WORLDCOM	ALL OTHER LONG DISTANCE CARRIERS	HERFINDAHL HIRSCHMAN INDEX (HHI)
1984	90.1 %	4.5 %	2.7 %		2.6 %	8,155
1985	86.3	5.5	2.6		5.6	7,479
1986	81.9	7.6	4.3		6.3	6,783
1987	78.6	8.8	5.8		6.8	6,298
1988	74.6	10.3	7.2		8.0	5,720
1989	67.5	12.1	8.4	` 0.2 %	11.8	4,778
1990	65.0	14.2	9.7	0.3	10.8	4,527
1991	63.2	15.2	9.9	0.5	11.3	4,321
1992	60.8	16.7	9.7	1.4	11.5	4,074
1993	58.1	17.8	10.0	1.9	12.3	3,795
1994	55.2	17.4	10.1	3.3	14.0	3,466
1995	51.8	19.7	9.8	4.9	13.8	3,197
1996	47.9	20.0	9.7	5.5	17.0	2,823

BASED ON TOTAL OPERATING REVENUES OF LONG DISTANCE CARRIERS AND TOTAL TOLL REVENUES FOR LOCAL EXCHANGE CARRIERS

· 	YEAR	AT&T	MCI	SPRINT	WORLDCOM	ALL OTHER LONG DISTANCE CARRIERS	BELL OPERATING COMPANIES	OTHER LOCAL TELEPHONE COMPANIES	HERFINDAHL- HIRSCHMAN INDEX (HHI) •
	1984	68.3 %	3.4 %	2.1 %		2.0 %	17.7 %	6.6 % -	4,734
	1985	67.1	4.3	2.0		4.4	16.5	5.8	4,571
	1986	63.5	5.9	3.3		4.9	16.7	5.7	4,129
ĺ	1987	60.2	6.7	4.4		5.2	17.5	5.9	3,742
1	1988	56.6	7.8	5.4		6.1	17.0	7.1	3,344
1	1 98 9	52.3	9.3	6.5	0.2 %	9.1	16.0	6.5	2,920
1	1990	50.7	11.1	7.5	0.2	8.4	15.8	6.2	2,801
1	1 99 1	50.2	12.1	7.8	0.4	9.0	14.7	5.9	2,768
1	1992	49.3	13.5	7.9	1.1	9.3	13.5	5.4	2,715
1	1993	47.5	14.5	8.2	1.5	10.1	13.1	5.2	2,568
	1994	46.0	14.5	8.4	2.8	11.7	11.8	4.8	2,440
1	1995	44.9	17.1	8.5	4:3	12.0	9.6	3.7	2,390
	1996	42.1	17.6	8.5	4.8	15.0	8.5	3.5	2,197

^{*} FCC estimate.

TABLE 3.3 - THE TOLL MARKET (DOLLAR AMOUNTS SHOWN IN MILLIONS)

		REVENUES			AS PERCENTAGE OF TOTAL TOLL REVENUES					
	INTRASTATE	DOMESTIC INTERSTATE	INTERNATIONAL	TOTAL TOLL REVENUES	INTRASTATE	DOMESTIC INTERSTATE	INTERNATIONAL			
1984	\$20,872	\$26,490	\$3,794	\$51,156	40.8 %	51.8 %	7.4 %			
1985	22,310	28,387	4,119	54,815	40.7	51.8	7.5			
1986	23,734	29,123	4,611	57,468	41.3	50.7	8.0			
1987	25,339	27,844	5,336	58,519	43.3	47.6	9.1			
1988	26,542	29,724	6,334	62,600	42.4	47.5	10.1			
1989	28,060	30,585	7,379	66,024	42.5	46.3	11.2			
1990	27,652	30,676	8,464	66,792	41.4	45.9	12.7			
1991	27,149	31,331	10,078	68,558	39.6	45.7	14.7			
1992	27,066	33,719	11,199	71,983	37.6	46.8	15.6			
1993	28,158	34,661	12,470	75,290	37.4	46.0	16.6			
1994	28,496	38,262	13,968	80,726	35.3	47.4	. 17.3			
1995	29,147	39,903	16,425	85,475	34.1	46.7	19.2			
1996	31,995	42,771	18,515	93,281	34.3	45.9	19.8			

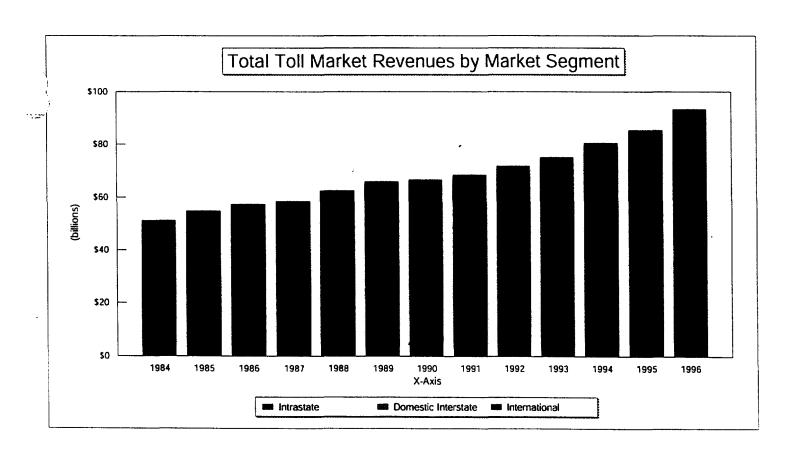


TABLE 3.4 - QUARTERLY TOLL REVENUES REPORTED TO SHAREHOLDERS (DOLLAR AMOUNTS SHOWN IN MILLIONS)

						T T		М	ARKET SI	HARE	
	AT&T	MCI	SPRINT	WORLDCOM	Others	Total	AT&T	MCI		WORLDCON	Others
1Q84	\$8,684	\$475	\$302		\$404	\$9,865	88.0 %	4.8 %	3.1 %		4.1 %
2Q84	9,169	485	317		423	10,394	88.2	4.7	3.0		4.1
3Q84	9,097	478	307		441	10,323	88.1	4.6	3.0		4.3
4Q84	9,272	521	320		461	10,574	87.7	4.9	3.0		4.4
1Q85	9,369	571	320		482	10,742	87.2	5.3	3.0		4.5
2Q85	9,840	601	322		503	11,266	87.3	5.3	2.9		4.5
3Q85	9,742	649	335		526	11,252	86.6	5.8	3.0		4.7
4Q85	9,838	721	368		549	11,477	85.7	6.3	3.2		4.8
1 Q8 6	9,865	819	395		574	11,652	84.7	7.0	3.4		4.9
2Q86	9,705	943	432		599	11,679	83.1	8.1	3.7		5.1
3Q86	9,642	910			626	11,730	82.2	7.8	4.7		5.3
4Q86	9,502	920			654	11,665	81.5	7.9	5.1		5.6
1Q87	9,085	1,005			683	11,388	79.8	8.8	5.4		6.0
2Q87	9,298	1,002			713 \		80.4	8.7	4.7		6.2
3Q87	9,474	1,044			745	11,948	79.3	8.7	5.7		6.2
4Q87	9,413	1,088			779	12,025	78.3	9.0	6.2		6.5
1Q88	9,229	1,212			813	12,023	76.8	10.1	6.3	0.1 %	6.8
2Q88	9,272	1,300			850	12,232	75.8	10.6	6.5	0.1	6.9
3Q88	9,378	1,437			887	12,633	74.2	11.4	7.3	0.1	7.0
4Q88	9,578	1,512			927	12,965	73.9	11.7	7.2	0.1	7.1
1Q89	9,326	1,625			968	12,923	72.2	12.6	7.6	0.2	7.5
2Q89	9,251	1,719			1,012	13,046	70.9	13.2	8.0	0.2	7.8
3Q 8 9	9,175	1,792		31	1,057	13,165	69.7	13.6	8.4	0.2	8.0
4Q89	9,239	1,835			1,104	13,400	68.9	13.7	8.9	0.2	8.2
1Q90	9,511	2,001			1,153	13,914	68.4	14.4	8.7	0.2	8.3
2Q90	9,553	2,061			1,205	14,095	67.8	14.6	8.8	0.3	8.5
3Q90	9,626	2,197			1,258	14,402	66.8	15.3	8.9	0.3	8.7
4Q90	9,693	2,197			1,315	14,577	66.5	15.1	9.1	0.3	9.0
1Q91	9,594	2,283			1,373	14,723	65.2	15.5	9.1	0.9	9.3
2Q91	9,637	2,354	-		1,434	14,925	1	15.8	9.1	1.0	9.6 .·
3Q91	9,820	2,412	-		1,498	15,242		15.8	8.8	1.1	9.8
4Q91	9,792	2,442			1,565	15,319		15.9	8.8	1.2	10.2
1Q92	9,873	2,513			1,635	15,562		16.1	8.7	1.2	10.5
2Q92	9,851	2,606			1,708	15,741		16.6	8.8	1.3	10.9
3Q92	10,132	2,682			1,784	16,236		16.5	8.8	1.3	11.0
4Q92	9,724	2,761			1,864	16,052		17.2	9.3	1.3	11.6
1Q93	9,967	2,810			1,947	16,434	1	17.1	9.1	1.3	11.8
2Q93	9,833	2,929	•		2,034	16,558		17.7	9.1	1.5	12.3
3Q93	10,142	3,054			2,125	17,144	1	17.8	9.0	1.6	12.4
4Q93	9,921	3,128			2,220	17,259		18.1	9.3	2.3	12.9
1Q94	10,224	3,22			2,319	17,948		17.9	9.2	2.9	12.9
2Q94	10,335	3,309			2,422	18,317		18.1	9.3	3.0	13.2
3Q94	10,378	3,40			2,530	18,624		18.3	9.3	3.1	13.6
4Q94	10,331	3,400			2,643	18,656		18.2	9.2	3.1	14.2
1Q95	10,736	3,56			2,761	19,650		18.1	8.9	4.3	14.1
2Q95	11,035	•			2,884	20,266		18.3	8.7	4.3	14.2
3Q95 4Q95	11,330				3,013	20,940	i	18.4	8.7	4.3	14.4
	11,250				3,147	21,159		18.5	9.1	4.4	14.9
1Q96	11,313				3,288	21,659		18.7	9.2	4.6	15.2
2Q96	11,223				3,434	21,906		19.0	9.4	4.7	15.7
3Q96	11,552				3,588	22,609		18.9	9.2	4.9	15.9
4Q96	11,541	4,30			3,748	22,970		18.7	9.4	5.3	16.3
1Q97	11,509				3,915	23,285		18.8	9.3	5.6	16.8
2Q97	11,582				4,089	23,582		18.5	9.4	5.7	17.3
¹ 3Q97 <u>4Q97</u>	11,695 11,388				4,272 4,463	23,978 24,210		18.1 18.7	9.4 <u>9.5</u>	5.9 6.2	17.8 18.4

4. RESIDENTIAL LONG DISTANCE MARKET SHARES

Bill Harvesting data collected by PNR and Associates (PNR) provides information on market shares in the long distance residential market, as opposed to the overall market for toll service. The Bill Harvesting data also provide information on the market shares of long distance carriers by state.

PNR is an economic research and consulting firm located in Jenkinstown, Pennsylvania. PNR conducts nationwide surveys of residential telephone usage and household expenditures on telephone service. These surveys, in which households are asked to mail copies of their phone bills for one month to PNR, are called Bill Harvesting studies.¹

PNR has donated databases containing information from their 1995 and 1996 Bill Harvesting studies to the Commission.² PNR has granted the Commission permission to use these databases for research purposes and to publish the results. Tables 4.1, 4.2, and 4.3, which are based on this information, present market shares for the residential long distance market based on lines, revenues and direct dial minutes. These tables include long distance market shares for AT&T, MCI, Sprint and other long distance carriers.³

Results of the Bill Harvesting surveys are interesting in several respects. For instance, AT&T's share of the residential long distance market is larger than its share of the total toll market. This result is consistent regardless of whether market shares are measured in lines, revenues or minutes. AT&T's share of the residential long distance market, by all three measures, dropped sharply from 1995 to 1996. As was the case in the overall toll market for long distance services, most of the growth occurred among smaller competitors. The Bill Harvesting data suggest that AT&T had 70% of presubscribed residential lines in 1996. We can estimate that AT&T's share of business access lines was about 51% by combining Bill Harvesting residential access line data with total access line data for June 1996.

The Bill Harvesting data also indicate that competition is present in all parts of the country. Indeed, smaller competitors appear to be as successful in rural states as in more urban states. Although the Bill Harvesting surveys include several thousand households, sample sizes for individual states can be quite small and therefore subject to large margins of error. Thus, these small sample sizes may limit the usefulness of these data in analyzing differences among states and differences over time.

¹ PNR and Associates can be contacted by phone at (215)886-9200, and by e-mail at info@pnr.com. Their address is 101 Greenwood Avenue, Suite 502, Jenkinstown, PA 19046.

² PNR first conducted a Bill Harvesting study in 1994 but the 1994 survey apparently is not fully comparable with later surveys. The 1995 survey is known as "Bill Harvesting II" and the 1996 survey, "Bill Harvesting III."

³ Market share for WorldCom is not separated from other long distance carriers in the residential market share data since the 1995 Bill Harvesting study included WorldCom in the category of other long distance carriers.

TABLE 4.1 - MARKET SHARE OF RESIDENTIAL ACCESS LINES BY STATE $\,$.

	1996					1995				
	AT&T	MCI	SPRINT	OTHERS	SAMPLE SIZE	AT&T	MCI	SPRINT	OTHERS	SAMPLE SIZE
Alabama	69.5 %	14.7 %	2.1 %	13.7 %	95	73.6 %	12.0 %	3.2 %	11.2 %	125
Arizona	73.2	8.7	11.6	6.5	138	78.2	12.1	5.8	3.9	206
Arkansas	72.5	13.0	1.4	13.0	69	75.3	12.3	4.9	7.4	81
California	75.6	12.8	6.3	5.3	742	75.9	15.3	4.8	4.0	793
Colorado	72.6	11.9	9.6	5.9	135	62.3	19.4	6.9	11.4	175
Connecticut	44.6	9.2	6.2	40.0	65	83.1	8.4	2.4	6.0	83
Delaware	64.7	23.5	11.8	0.0	17	87.5	8.3	0.0	4.2	24
Dist. of Columbia	69.2	15.4	0.0	15.4	13	90.9	9.1	0.0	0.0	11
Florida	71.4	10.2	6.4	12.0	451	75.6	12.5	4.3	7.6	536
Georgia	79.5	8.9	4.1	7.5	146	73.3	16.8	3.8	6.1	131
Idaho	72.5	10.0	7.5	10.0	40	78.7	14.8	3.3	3.3	61
Illinois	73.8	15.2	3.8	7.2	290	77.4	13.1	3.3	6.1	359
Indiana	77.0	12.1	3.0	7.9	165	75.3	10.5	4.7	9.5	190
Iowa	72.8	13.2	1.8	12.3	114	78.7	11.6	4.9	4.9	164
Kansas	60.7	14.8	8.2	16.4	61	72.1	13.5	3.6	10.8	111
Kentucky	71.6	14.7	2.0	11.8	102	74.7	11.6	2.1	11.6	146
Louisiana	70.5	12.5	4.5	12.5	88	70.0	18.5	4.6	6.9	130
Maine	81.5	18.5	0.0	0.0	27	74.6	14.3	1.6	9.5	63
Maryland	59.8	23.6	3.9	12.6	127	71.2	17.8	3.1	8.0	163
Massachusetts	74.6	9.8	4.1	11.5	122	82.8	8.9	2.2	6.1	180
Michigan	59.7	18.1	5.0	17.2	221	73.0	12.8	2.8	11.4	359
Minnesota	64.7	17.3	4.0	13.9	173	70.4	15.6	3.2	10.8	250
Mississippi	76.6	4.3	8.5	10.6	47	80.3	13.1	3.3	3.3	61
Missouri	59.1	17.4	3.8	19.7	132	73.8	11.6	6.7	7.9	164
Montana	67.7	16.1	0.0	16.1	31	80.8	11.5	1.9	5.8	52
Nebraska	71.2	17.3	1.9	9.6	52	73.6	13.9	1.4	11.1	72
Nevada	66.0	16.0	16.0	2.0	50	67.5	15.0	10.0	7.5	40
New Hampshire	77.5	10.0	10.0	2.5	40	80.5	7.3	7.3	4.9	41
New Jersey	77.5	11.9	5.6	5.0	160	84.2	10.4	1.0	4.5	202
New Mexico	64.9	10.5	7.0	17.5	57	78.7	11.5	4.9	4.9	61
New York	69.4	15.4	3.7	11.5	461	78.3	11.9	4.1	5.7	663
North Carolina	63.6	14.9	6.7	14.9	195	78.3	11.1	4.4	6.2	226
North Dakota	50.0	18.8	6.3	25.0	16	69.2	7.7	5.1	17.9	39
Ohio	68.3	14.4	4.8	12.5	271	71.5	10.9	5.2	12.4	386
Oklahoma	64.1	12.5	4.7	18.8	64	75.8	12.5	3.3	8.3	120
Oregon	64.1	11.7	6.8	17.5	103	79.6	7.3	4.4	8.8	137
Pennsylvania	66.2	18.0	1.6	14.1	305	70.5	12.4	4.1	13.1	590
Rhode Island	74.1	11.1	3.7	11.1	27	95.7	4.3	0.0	0.0	23
South Carolina	70.4	7.0	5.6	16.9	71	76.9	8.3	2.8	12.0	108
South Dakota	73.9	13.0	0.0	13.0	23	61.7	25.5	2.1	10.6	47
Tennessee	71.5	9.3	4.0	15.2	151	77.0	9.1	3.9	10.0	230
Texas	71.4	14.3	4.0	10.2	420	66.2	15.6	5.4	12.8	461
Utah	59.6	14.0	14.0	12.3	. 57	68.2	10.6	10.6	10.6	85
Vermont	94.1	0.0	5.9	0.0	17	64.7	17.6	11.8	5.9	17
Virginia	66.9	18.9	4.0	10.3	175	76.5	12.4	5.3	5.8	226
Washington	67.3	10.1	6.9	15.7	159	65.9	15.3	7.6	11.2	170
West Virginia	74.4	18.6	0.0	7.0	43	69.6	17.7	1.3	11.4	79
Wisconsin		13.9	4.2	13.9	165	75.5	14.9	2.5	7.1	322
Wyoming	80.0	6.7	0.0	13.3	15	94.1	0.0	0.0	5.9	17
Total	69.9	13.7	5.0	11.4	6,708	74.6	13.0	4.2	8.3	8,980

Source: PNR and Associates, Bill Harvesting II and III $\$

TABLE 4.1 - MARKET SHARE OF RESIDENTIAL ACCESS LINES BY STATE .

	1996					1995				
	AT&T	MCI	SPRINT	OTHERS	SAMPLE SIZE	AT&T	MCI	SPRINT	OTHERS	SAMPLE SIZE
Alabama	69.5 %	14.7 %	2.1 %	13.7 %	95	73.6 %	12.0 %	3.2 %	11.2 %	125
Arizona	73.2	8.7	11.6	6.5	138	78.2	12.1	5.8	3.9	206
Arkansas	72.5	13.0	1.4	13.0	69	75.3	12.3	4.9	7.4	81
California	75.6	12.8	6.3	5.3	742	75.9	15.3	4.8	4.0	793
Colorado	72.6	11.9	9.6	5.9	135	62.3	19.4	6.9	11.4	175
Connecticut	44.6	9.2	6.2	40.0	65	83.1	8.4	2.4	6.0	83
Delaware	64.7	23.5	11.8	0.0	17	87.5	8.3	0.0	4.2	24
Dist. of Columbia	69.2	15.4	0.0	15.4	13	90.9	9.1	0.0	0.0	11
Florida	71.4	10.2	6.4	12.0	451	75.6	12.5	4.3	7.6	536
Georgia	79.5	8.9	4.1	7.5	146	73.3	16.8	3.8	6.1	131
Idaho	72.5	10.0	7.5	10.0	40	78.7	14.8	3.3	3.3	61
Illinois	73.8	15.2	3.8	7. 2 ⊦	290	77.4	13.1	3.3	6.1	359
Indiana	77.0	12.1	3.0	7.9	165	75.3	10.5	4.7	9.5	190
Iowa	72.8	13.2	1.8	12.3	114	78.7	11.6	4.9	4.9	164
Kansas	60.7	14.8	8.2	16.4	61	72.1	13.5	3.6	10.8	111
Kentucky	71.6	14.7	2.0	11.8	102	74.7	11.6	2.1	11.6	146
Louisiana	70.5	12.5	4.5	12.5	88	70.0	18.5	4.6	6.9	130
Maine	81.5	18.5	0.0	0.0	27	74.6	14.3	1.6	9.5	63
Maryland	59.8	23.6	3.9	12.6	127	71.2	17.8	3.1	8.0	163
Massachusetts	74.6	9.8	4.1	11.5	122	82.8	8.9	2.2	6.1	180
Michigan	59.7	18.1	5.0	17.2	221	73.0	12.8	2.8	11.4	359
Minnesota	64.7	17.3	4.0	13.9	173	70.4	15.6	3.2	10.8	
Mississippi	76.6	4.3	8.5	10.6	47	80.3	13.1	3.2	3.3	250
Missouri	59.1	17.4	3.8	19.7	132	73.8	11.6	6.7	7.9	61
Montana	67.7	16.1	0.0	16.1	31	80.8	11.5		ì	164
Nebraska	71.2	17.3	1.9	9.6	52	73.6	13.9	1.9	5.8	52
Nevada	66.0	16.0	16.0	2.0	50	67.5	1 1	1.4	11.1	72
New Hampshire	77.5	10.0	10.0	2.5	40	80.5	15.0	10.0	7.5	40
New Jersey	77.5	11.9	5.6	5.0	160	84.2	7.3	7.3	4.9	41
New Mexico	64.9	10.5	7.0	17.5	57	78.7	10.4	1.0	4.5	202
New York	69.4	15.4	3.7	11.5	461	li .	11.5	4.9	4.9	61
North Carolina	63.6	14.9	6.7	14.9	1 1	78.3	11.9	4.1	5.7	663
North Dakota	50.0	18.8	6.3	25.0	195	78.3	11.1	4.4	6.2	226
Ohio	68.3	14.4	4.8	12.5	16 271	69.2	7.7	5.1	17.9	39
Oklahoma	64.1	12.5	4.7	18.8	1	71.5	10.9	5.2	12.4	386
Oregon	64.1	11.7	6.8		64	75.8	12.5	3.3	8.3	120
Pennsylvania	66.2	18.0	1.6	17.5	103	79.6	7.3	4.4	8.8	137
Rhode Island	74.1	11.1	3.7	14.1	305	70.5	12.4	4.1	13.1	590
South Carolina	70.4	7.0		11.1	27	95.7	4.3	0.0	0.0	23
South Dakota	73.9		5.6	16.9	71	76.9	8.3	2.8	12.0	108
Tennessee	71.5	13.0 9.3	0.0	13.0	23	61.7	25.5	2.1	10.6	47
Texas	71.3		4.0	15.2	151	77.0	9.1	3.9	10.0	230
Utah	59.6	14.3	4.0	10.2	420	66.2	15.6	5.4	12.8	461
Vermont	94.1	14.0	14.0	12.3	. 57	68.2	10.6	10.6	10.6	85
Virginia	66.9	0.0	5.9	0.0	17	64.7	17.6	11.8	5.9	17
Washington	67.3	18.9	4.0	10.3	175	76.5	12.4	5.3	5.8	226
West Virginia		10.1	6.9	15.7	159	65.9	15.3	7.6	11.2	170
Wisconsin	74.4	18.6	0.0	7.0	43	69.6	17.7	1.3	11.4	79
Wyoming	67.9	13.9	4.2	13.9	165	75.5	14.9	2.5	7.1	322
	80.0	6.7	0.0	13.3	15	94.1	0.0	0.0	5.9	17
Total	69.9	13.7	5.0	11.4	6,708	74.6	13.0	4.2	8.3	8,980

Source: PNR and Associates, Bill Harvesting II and III,

TABLE 4.2 - MARKET SHARE OF TOTAL LONG DISTANCE CARRIER RESIDENTIAL REVENUE BY STATE

	1996					1995				
	AT&T	MCI	SPRINT	OTHERS	SAMPLE SIZE	AT&T	мсі	SPRINT	OTHERS	SAMPLE SIZE
Alabama	60.5 %	17.4 %	5.2 %	16.9 %	99	59.9 %	19.4 %	4.2 %	16.5 %	121
Arizona	56.9	10.4	19.6	13.2	107	74.8	14.1	3.9	7.1	192
Arkansas	70.5	12.3	2.6	14.6	76	65.9	11.5	4.7	17.9	73
California	68.4	15.3	7.1	9.2	752	70.4	16.2	6.9	6.5	741
Colorado	65.5	13.2	5.9	15.5	115	61.5	17.5	6.5	14.4	154
Connecticut	39.0	28.7	6.0	26.3	63	71.2	18.6	1.3	9.0	87
Delaware	55.9	19.5	10.7	13.9	18	79.4	10.9	0.0	9.7	23
Dist. of Columbia	74.6	20.5	1.8	3.1	15	83.6	9.0	0.0	7.4	11
Florida	65.0	12.7	9.2	13.0	438	67.6	12.7	8.8	10.9	503
Georgia	75.7	9.7	3.2	11.4	169	73.6	11.7	6.5	8.2	127
Idaho	75.3	8.3	5.5	11.0	31	71.2	16.5	4.1	8.2	60
Illinois	63.5	14.4	11.5	10.6	289	69.0	19.7	2.6	8.7	342
Indiana	64.0	15.4	4.9	15.7	161	73.0	11.2	4.3	11.5	183
Iowa	65.1	11.7	2.5	20.8	104	70.6	12.6	10.0	6.7	146
Kansas	48.1	17.2	11.4	23.4	73	73.4	11.6	4.2	10.9	
Kentucky	66.9	18.6	1.6	12.9	109	68.6	16.4	1.1	14.0	108
Louisiana	72.4	8.3	2.9	16.4	106	62.5	12.6	5.4	19.5	143
Maine	55.6	18.5	0.0	25.9	25	63.1	17.3	0.3		128
Maryland	52.0	26.6	8.0	13.3	135	73.8	17.3		19.4	58
Massachusetts	75.4	10.6	1.6	12.4	117	75.6	10.6	5.5	7.5	154
Michigan	57.0	20.7	3.5	18.9	217	63.3		5.4	8.4	169
Minnesota	51.9	27.6	6.7	13.9	138		16.2	5.0	15.5	341
Mississippi	62.4	8.9	2.9	25.9	49	60.2	22.5	4.0	13.3	230
Missouri	55.3	19.9	4.0	20.8	135	89.7	6.0	0.9	3.3	60
Montana	62.4	16.1	0.0	21.5	25	68.0	14.2	3.3	14.6	151
Nebraska	63.5	20.2	1.6	14.7	46	78.0	18.7	1.7	1.6	50
Nevada	57.8	17.4	18.6	6.2	46 47	60.4	17.5	4.3	17.8	69
New Hampshire	67.5	10.0	15.5	7.0	39	67.9	11.7	6.4	14.0	33
New Jersey	71.7	14.2	5.1	9.0	1	68.1	16.3	5.4	10.2	40
New Mexico	61.2	8.9	7.8	9.0 22.1	166	177.6	15.1	1.4	5.9	195
New York	63.8	18.8	7.4		48	71.4	7.3	9.0	12.3	56
North Carolina	60.6	16.2	7.4	10.0	449	71.1	15.0	5.6	8.2	603
North Dakota	36.7			16.1	189	78.4	9.4	6.0	6.1	216
Ohio	66.1	24.4	7.5	31.4	13	68.7	5.0	5.5	20.8	34
Oklahoma	58.4	15.5 16.6	4.3	14.1	275	69.1	10.8	5.3	14.8	358
Oregon	66.0	15.4	8.2	16.8	77	65.6	23.5	3.5	7.4	109
Pennsylvania	62.0	19.1	3.2	15.5	105	69.8	7.8	6.0	16.4	132
Rhode Island	68.6	21.0	2.3	16.6	322	62.4	14.8	4.2	18.5	574
South Carolina	52.9	21.0 22.3	2.9	7.5	26	89.6	8.1	0.0	2.2	23
South Dakota	70.2	19.2	9.7	15.1	76	72.2	7.7	10.3	9.8	108
Tennessee	67.3		0.0	10.6	22	56.8	25.1	3.5	14.5	45
Texas	58.2	16.4	4.3	12.0	171	71.1	12.0	6.4	10.5	219
Utah	65.7	17.5	8.8	15.5	471	58.2	20.6	6.7	14.4	418
Vermont		9.3	12.6	12.4	• 39	76.9	10.2	10.5	2.3	73
Virginia	89.6	0.0	10.4	0.0	14	58.1	13.1	0.5	28.3	15
Washington	65.5	18.5	3.7	12.3	177	69.4	13.2	9.1	8.3	211
	57.4	8.5	11.1	23.0	156	59.7	13.2	11.8	15.2	153
West Virginia	74.4	7.3	0.8	17.5	40	67.4	15.1	0.5	17.1	74
Wisconsin	64.3	17.1	3.4	15.2	157	68.3	15.4	4.0	12.3	321
Wyoming Total	88.8 63.3	4.3	0.0	6.8	10	78.2	2.8	17.1	1.9	16
a Utal	03.3	16.0	6.6	14.1	6,701	68.5	14.6	5.6	11.3	8,450

Source: PNR and Associates, Bill Harvesting II and III. Taxes are not included in total revenue.